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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

Vol. XXIII. Chicago, Ill., January 5, 1887. No. 1.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday at
923 & 925 WEST MADISON-ST, CHICAGO, ILL.
At One Dollar a Year.

THOMAS G. NEWMAN AND SON,
PUBLISHERS.

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TO CORRESPONDENTS.

The subscription price of the AMERICAN BEE JOURNAL is One Dollar a year.—New Subscriptions can begin at any time. Single Copies, five cents each.

Our Club Rates are as follows: **$1.90** for two copies (to the same or different post-offices); **$2.75** for three copies; **$3.50** for four copies; and for five or more copies, 80 cents each.

Foreign Postage.—To all countries in the Universal Postal Union: **50** cents extra. To all countries **NOT** in the Universal Postal Union, **$1.00** more than the price of subscription.

Sending Money.—Remit by Express, Post Office Order, Postal Note, or Bank Draft on New York or Chicago. If neither of these can be obtained, Register your Letter, affixing stamps both for postage and registry, and take a receipt for it; Money, sent thus, is AT OUR RISK, otherwise, it is not. Do not send checks on local banks, which cost us 25 cents each, at the banks here, to get them cashed.

Postage Stamps of any denomination may be sent for fractions of a dollar; or where Money Orders cannot be obtained, stamps for any amount may be sent.

Subscription Credits.—The receipt for money sent us will be given on the address-label of every paper. If not given in two weeks after sending the money, write to us, for something must be wrong. Do not wait for months or years, and then claim a mistake. The subscription is paid to the END OF THE MONTH indicated on the wrapper-label. This is a continual statement of account.

Advertisements for the next Weekly BEE JOURNAL must reach this office by the Saturday of the previous week.

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TO CORRESPONDENTS.

The Bee Journal is sent to subscribers until an explicit order is received by the publishers for its discontinuance, and the payment of all arrearages is made.

To Canadians.—We take Canadian money for subscription or books; and Canadian postage stamps may be sent for fractions of a dollar.

When writing to this office on Business, correspondents must not write anything for publication on the same sheet of paper, unless it can be torn apart without interfering with either part of the letter. The editorial and business departments are separate and distinct, and when the business is mixed up with items for publication it often causes confusion. They both may be sent in one envelope, but on separate pieces of paper.

Never send Silver in Letters. It will wear holes in the envelope, or may be stolen.

Emerson Binders, made especially for the BEE JOURNAL, are lettered in gold on the back, and make a very convenient way of preserving the BEE JOURNAL as fast as received. They will be sent, post-paid, for 60 cents each. They cannot be sent by mail to Canada.

Make all Money Orders and Postal Notes payable at Chicago, Ills.—Some postmasters in the country insist on making such payable at some sub-station of Chicago, but we want them drawn on the *main office.*

Lost Numbers.—We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails, we will cheerfully replace them if notified before all the edition is exhausted.

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923 & 925 WEST MADISON STREET,
CHICAGO, ILLINOIS.

Rates to Supply Dealers.—On ten or more copies of one kind, we allow 25 per cent. discount, and pay postage, or when the dealer pays expressage, 40 per cent discount.

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The Apiary Register, by THOMAS G. NEWMAN.—A Record and Account Book for the Apiary, devoting 2 pages to each colony, ruled and printed, and is so arranged that a mere glance will give its complete history. Strongly bound in full leather. Price, for 50 colonies, **$1.00**; for 100 colonies, **$1.25**; for 200 colonies, **$1.50.**

Honey as Food and Medicine, by THOMAS G. NEWMAN.—It gives the various uses of Honey as Food; recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc. Also, Honey as Medicine, with many valuable recipes. It is intended for consumers, and should be liberally scattered to help in creating a demand for honey. Price, for either the **English** or **German** edition, 5 cents—one dozen, **40** cents—100 for **$2.50**—500 for **$10.00**—1,000 for **$15.00.**—If 100 or more are ordered, we will print the bee-keeper's card (free of cost) on the cover.

Bee-Keepers' Convention Hand Book, by THOMAS G. NEWMAN.—It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for discussion—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, **50** cents. Leather, **60** cents.

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Preparation of Honey for the Market, including the production and care of both Comb and Extracted Honey, and Instructions on the Exhibition of Bees and Honey at Fairs, etc., by THOMAS G. NEWMAN. A chapter from "Bees and Honey."—**10 cts.**

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Bees in Winter, by THOMAS G. NEWMAN.—Describing Chaff-packing, Cellars and Bee-Houses. A chapter from "Bees and Honey." Price 5c.

"Success in Bee-Culture, as practiced and advised by James Heddon." This book consists of 128 pages; is well-printed on good paper and illustrated. It covers the whole field of practical apiculture, and is intended for specialists and those who keep bees for the money to be obtained from the business. In his preface the author says: "In the delineation of methods of management, and of implements and devices, appertaining thereto, it has been my constant aim to present such only as will approximate uniform and unvarying success, as nearly as possible, when the requisite conditions have been complied with, and thereby obviate the disappointments and vexatious losses, resulting from the complicated and impracticable in both management and utensils. Price **50 cents.**

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Emerson Binders, made especially for the BEE JOURNAL, and lettered in gold on the back. Price, **60 cents** each. They cannot be sent by mail to Canada.

"A Year among the Bees, being a Talk about some of the Implements, Plans and Practices of a Bee-Keeper of 25 years' experience, who has for 8 years made the production of honey his exclusive business. —By Dr. C. C. Miller—Price **75 cents.**

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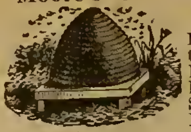

Enlarged Edition—contains over **1,000,000** Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer and Business Man. The work contains **1,016** pages—is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man or Farmer. By mail, in fine cloth, $2.50.

How to Propagate and Grow Fruit, by Charles A. Green, contains over 50 illustrations and two large colored fruit plates. This book tells HOW TO PROPAGATE Strawberries, black raspberries, red raspberries, blackberries, currants, gooseberries, grapes, quince, peach, apricot, plum, cherry, pear and apple; also GENERAL RULES for propagation, with illustrations showing how to bud, how to graft, how to propagate from layers, stools, inarching, with full instructions for grafting the grape. It tells how to lay out a garden or fruit farm—how to plant, cultivate trim, etc. Price, **25** cents.

"How to Raise Comb Honey" is the title of a new illustrated pamphlet of 16 pages, by Oliver Foster, of Mount Vernon, Iowa. He says that it describes his "improvements in methods resulting from ten years' practical work and extensive experiments," and includes his "adjustable honey-case and clamp." Price 5 **cents.**

"Farmer's Account Book," contains 166 pages, printed on writing paper, ruled and bound, and the price is $3.00. We will club it and the Weekly BEE JOURNAL for a year for **$3.00.** If you want it sent by mail, add 20 cents for postage.

The A B C of Carp Culture, is a neat pamphlet of about 100 pages. It explains the simplest, cheapest and most effective system of carp culture, and being written by Mr. Milton P. Pierce, of Philadelphia, Pa., Secretary of the American Carp Cultural Association, it cannot fail to be of inestimable value to all interested in the "finny tribes." Price, **40** cents.

The A B C of Potato Culture; "how to grow them in the largest quantity, and of the finest quality, with the least expenditure of time and labor." The book is not only a valuable one to potato-growers, but a great part of it applies to the management of almost any crop on the farm, especially to the preparation of the soil, manures, etc. Price, **40** cents.

A Brief History of the North American Bee-Keepers' Society, with a digest of its 15 Annual Conventions, and a full Report of the Proceedings of the 16th Annual Convention held at Detroit, Mich., on Dec. 8 to 10, 1885. It contains 64 pages. Price, **25c.**

Photographs of Rev. L. L. Langstroth, Baron of Berlepsch, or Dzierzon, **25** c. each.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, **10c.** each, or $8 per 100. Large and elegant ones, with rosette, **50** cents, post-paid.

Scribner's Lumber and Log Book.—Gives measurement of all kinds of lumber, logs and planks; wages, rent, etc. Price, **35c.**

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Bienen Kultur, by THOMAS G. NEWMAN. —In the **German** language. Price, in paper covers, **40** cents, or **$3** per doz.

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THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

AMERICAN
ESTABLISHED IN 1861
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BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Jan. 5, 1887. No. 1.

Ring out, O Bells! ring silver sweet,
O'er hill and moor and dell ;
In mellow echoes, let your chimes,
Their hopeful story tell !

Ring out ! ring out ! all-jubilant,
This joyous, glad refrain ;
" A bright New Year, a glad New Year !
Hath come to us again !"

◆

The First Monthly for January, 1887, which came to our desk was the *Apiculturist*. It is vastly improved under its present management. We congratulate Mr. Alley upon his punctuality in publishing it.

◆

The best thing we can do to extend the circulation of the paper is to ask our subscribers to consider themselves on especially friendly and co operative relations with our aims and purposes, and send us the names of the right kind of people, to whom we will send sample copies. When they read the paper even once, a great many of them become regular subscribers.

◆

A Visit from Frank Cheshire may be expected next summer. Mr. Arthur Todd writes us as follows :

> I received a note from Frank Cheshire, of London, England, last week, in which he tells me that he is thinking of visiting the United States the coming summer. If he does, I hope the bee-brethren will extend to him a hearty welcome.

◆

The British Bee Journal and the AMERICAN BEE JOURNAL will hereafter be clubbed at $3 for the two, postpaid, for a year. This change in the clubbing price is neccessary on account of an advance in the club rate of the former.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

The Year 1886 has waxed old and passed away ! The new year has come, has taken possession of the destinies of mankind, and changed the dial of time one figure ahead. A philosopher has well said that change, incessant change, is the constant law of nature ! The flower changes into the fruit, the seed into the stalk, the boy into the man, life into death, the old year into the new year ! The seasons change, the skies change, the oceans change, the whole face of nature changes ! Filled with the mighty thoughts that these unvarying facts produce, we enter to-day upon the duties and responsibilities which the new year presents, remembering that the old year, with all its joys and sorrows, pains and pleasures, toils and troubles, is no more !

How rapidly the days, months and years pass on, in the sweeping tide of time ! The 13 years of toil which we have spent in guiding the destiny of this JOURNAL, seem but a few months, now that they are past ! But it is very pleasing to realize that it now enjoys a reputation and influence second to none in the world of apiculture ! Its weekly visits to thousands of homes all over the world is *welcomed* with enthusiasm !

The "fleeting shadows" warn us of our approaching end, and bid us to be ready for it. Meanwhile to us is appointed the strife and peril of warfare—battling for the right, waging war on the errors of the past, and doing our share in erecting the temple to be dedicated to truth, honesty, justice and progress. If we shall do our work faithfully and well, we may expect the welcome words, "Well done !" Our co-workers in "the ages to come," will sit in judgment over our labors, and their verdict, shorn of all the prejudices of the present time, will be based upon the just merits of the case. Let our work, then, be done faithfully and well, and with reference to the ever-advancing principles of progressive thought and action.

The AMERICAN BEE JOURNAL is published in the interest of honey-producers, and its chief work and aim is to present the best thoughts and methods of the ever-advancing apiarist of to-day. It aims to record what is being done by practical and experienced men in every department of our pursuit, and to take every advantage of the aid offered by scientific discoveries. To show that it has done this in the past, it is only necessary to point to the copious index at the end of each volume.

It is quite unnnecessary to state that we shall in the future, as in the past, endeavor to "keep abreast of the times," and place before our readers all the new things in our ever-advancing pursuit, as soon as they come to light. The record, character, power and usefulness of the AMERICAN BEE JOURNAL in the past is its *guarantee* for the future. It will further the interests of honey-producers by losing no opportunity to create a demand for this product, both at home and abroad—thus aiming to benefit the pursuit at large.

Our friends are invited to sustain and extend the influence of a journal devoted to their interests and pursuit ; one which has demonstrated through a career of nearly a quarter of a century, its ability to sustain and promote their cause ! It is, in fact, a common cause, one which all should feel proud to join in advancing.

Driven from Pillar to Post.—The believers in the "Wiley lie," about the manufacture of comb from paraffine, filling it with glucose and sealing it over with a "hot iron," are industriously engaged in finding the place where it is said to be manufactured—but each time are foiled in the attempt ! A correspondent lately wrote us the following :

> An acquaintance of mine says that they manufacture comb honey in Chicago, at the northeast corner of Adams and Halstead streets. He told me that he saw them capping the cells with a "hot iron," but that he did not see them making the comb. Suppose you do a little detective work and try to find out what is going on at that corner.

Upon investigating that locality the "detective" could find nothing of the so-called "manufactory ;" a drug-store, two saloons, and a shoe-store were all that could be discovered ! There were no basements under these stores.

One block from that corner there is a laundry with a Chinese near the window ironing collars, cuffs, etc., with a cake of beeswax by his side ; and it is quite possible that this innocent laundry-man has been accused of "making comb" and "capping the cells with a hot iron !"

It is positively *disgusting* to notice the persistency with which it is reported that persons have *seen* "comb manufactured and sealed with machinery." Yet ; whenever "cornered" for the proof, they are never able to say more than somebody saw it done somewhere, by somebody.

◆

The Standard-Bearer of the apiculture of to-day, says an exchange, is the sound, intelligent man who believes that progress is the law of our race ; who holds that no man of enterprise can afford to stand still while the world goes forward—that inactivity means simply stagnation and decay, and that the surest proof of vitality and vigor, both of muscle and brain, is the steady, forward movement of wise and practical men, who are always intent on working out better methods, and always ready and willing to enrich the general fund of knowledge with the fruits of their experience. Whenever such, in the course of their investigations, succeed in bringing to light new facts or new processes, they give a fresh impulse to industry, and make their countrymen their debtors.

◆

Every Day the business letters that come to this office are fully attended to and finally disposed of—none are left until the next day, except those in which the writer has omitted either name or Postoffice address. We endeavor to be prompt and accurate, and if our subscribers will practice the same virtues, more than half of the little annoyances that happen will be done away with.

◆

Clubs should be forwarded to this office as soon as two or three subscribers have been obtained. Any one having sent three subscriptions with $2.75, may send two more with $1.25, making 80 cents each for the five, and at the same rate for all above that number.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Bees Dying in Winter Years Ago.

Query, No. 356.—I have heard that bees did not die in winter 40 or 50 years ago, as they do now if they had plenty of honey. Is this true? If so, what has made the change? —H. W.

There were no bee-papers 40 or 50 years ago to give reports of deaths. Don't you believe a bit of it. They did die.—J. P. H. BROWN.

I am inclined to believe there is a difference, but I will not attempt fully to account for it.—C. C. MILLER.

That is not true. Bees, when insufficiently protected, have always suffered from bee-diarrhea and died in severely cold and protracted winters.—G. L. TINKER.

Do not believe all that folks say about the "good old times," for their remembrance is often incorrect. The winter of 1855-56 was the hardest winter known by Father Langstroth. —DADANT & SON.

It is true to a certain extent. The cutting off of our forests has much to do with it; this making most localities much colder than formerly.—G. M. DOOLITTLE.

I do not know that this is true. The climatic changes are greater than they were 50 years ago, and it is claimed that the foreign races are not as hardy as our native bees.—H. D. CUTTING.

I think it is true. I presume the reason is that the winters were then much milder. Clearing off the forests has changed our climate. We used to raise peaches plentifully in central Michigan; now we cannot except on very elevated areas.—A. J. COOK.

If we give the bees equal protection, and report no more than we did 40 years ago, the difference will not seem so great. Forty or 50 years ago our prairies were mostly unsettled, and the timber had not been cleared from the hills of the East. Replace the forests and the increased rainfall they are supposed to bring, and the success will return. I do not know whether the theory is true or not.—C. W. DAYTON.

I do not know that it is true. If it is true it may be attributable to the clearing up of the country, allowing the winds to sweep over the country with greater force; or it may be caused by movable combs, which allow us to take away the best honey; or it may be that chaff packing and cellars have not allowed the culling out by nature of the weakest or poorest, on the line of the "survival of the fittest," or it may be—I do not know.—W. Z. HUTCHINSON.

As I did not keep bees 40 or 50 years ago, I cannot answer. Is it a fact though? and who can give us the proofs? It is my impression from my studies, that bees have always died to a greater or less extent in winter, and I know that the winter problem has been a matter of discussion for centuries.—J. E. POND, JR.

I helped my father work with his bees 40 years ago, and bees winter now as well as they did then, *the conditions being the same.* Bees have always been wintered in Kentucky on the summer stands, without protection. Our fathers, 40 years ago, wintered their bees in large brood-chambers, full of honey, and the bees clustered in the centre of the combs, the best material possible for bees to be surrounded with. Now-a-days bees are robbed of their nest (combs), and forced to roost on the sides of the frosty wooden walls, and these walls are packed on the outside with just enough chaff or sawdust to keep out the influence of the sun, and preserve the frost on the inside for an unlimited time.—G. W. DEMAREE.

This is partly true and partly false, at least in this locality. Forty or 50 years ago bees were put into winter quarters with much less bee-bread in the combs; as the country was cleared up pollen-producing fall weeds took the place of spring-pollen producing trees. This truth has given rise to an idea that old, tall box-hives are safer for wintering bees than flat frame hives. About 14 years ago, two farmers living a few miles away had, in autumn, 65 and 85 colonies respectively, in all depths, sizes and shapes of box-hives. In the following spring they had one live colony each. —JAMES HEDDON.

Even the meager record we have of the losses of bees in winter half-a-century ago, shows that there is but little difference between then and now. The climatic changes, produced by the destruction of our native forests in the East, will easily account for all the difference which exists.—THE EDITOR.

Moisture in Hives.

Query, No. 357.—On examining my bees on the summer stands, I frequently find the combs covered with ice and frost. Does the *breath* of the bees produce *all* this moisture? Please say "yes" or "no," as your experience may have proven.—W. T., Ills.

No.—JAMES HEDDON.

No.—H. D. CUTTING.

No.—C. W. DAYTON.

Yes.—DADANT & SON.

Perhaps not all, but I should say the most of it.—W. Z. HUTCHINSON.

If the moisture arising from the body of the bees is what you mean by "breath," yes.—G. M. DOOLITTLE.

The breath of the bees does not produce all the moisture—some of it comes from the evaporation of the honey.—J. P. H. BROWN.

In part. The moisture may condense from the air, and freeze away from the cluster.—A. J. COOK.

Yes, but when I see ice and frost at the hive-entrance of a colony, or upon the combs, I know that the bees are suffering from the cold, and will not come out in good condition in the spring.—G. L. TINKER.

The question cannot be answered fairly by yes or no. The moisture is caused in all probability, partially by breath, and more so, by emanations or perspiration, as we might call it. The whole matter is more or less conjectural. We know that where there is no ventilation, moisture forms and freezes. We know, also, that heat and cold will produce moisture.—J. E. POND, JR.

A current of warm air coming in contact with a cold surface will part with its moisture, and if the surface is cold enough frost or ice will be formed, as we see illustrated in the stair-way that leads into a warm cellar. The heated air thrown off from a warm cluster of bees comes in contact with the cold walls of the hive, where it parts with its moisture, which adheres to the wall, and is formed into frost or ice as to the degree of cold and dampness present. Of course "breath" is warm air, but any warm air will produce the effects. —G. W. DEMAREE.

I can hardly see cause for much frost and ice aside from the vapor exhaled by the bees. Possibly a small amount of moisture might be evaporated from the honey in the cluster under some circumstances, and there might even be condensation of a small amount from the outside air if it should find the combs colder than the outside air.—C. C. MILLER.

The moisture in the hive, whether from the cluster of bees or from the honey evaporation, will condense and form frost or ice on the wood in very cold weather.—THE EDITOR.

Laying in Queen-Cells—Drone Eggs.

Query, No. 358.—Do queens ever lay eggs in queen-cells, after the cells are started? If so, did any one ever see them? Do queens lay the eggs that produce drones? —T. F. P., Ills.

I answer "yes" to all of this query. —A. J. COOK.

I never have seen them do so.—J. E. POND, JR.

They have been seen laying in queen-cells. Queens lay the eggs that produce drones.—W. Z. HUTCHINSON.

I never saw the queens do so. Not in all cases do queens lay the eggs that produce drones.—H. D. CUTTING.

I have seen queens depositing eggs in queen-cells in two instances. To the second part, yes.—C. W. DAYTON.

Yes, to both questions. My assistant once saw a queen lay in a queen-cell, and I have seen drone-eggs, by the score, laid by queens.—G. M. DOOLITTLE.

I think that queens lay eggs in queen-cells after the cells are started, but I do not know that any one ever saw them in the act. To the last part of the query I would say, yes, generally.—C. C. MILLER.

My opinion is that the queens lay the eggs often found in queen-cells about swarming time; but I never saw one laying in them. The queens also lay the eggs that produce drones. I have seen them in the act of laying drone eggs.—G. L. TINKER.

I never saw a queen laying in a queen-cell. Honest men who have produced far less honey than I have, and claim to know, say that the queen sometimes lays in the queen-cells, and sometimes the workers transfers eggs to them. Yes, queens lay eggs that produce drones. The best of fertile queens do that. I know this by personal observation.—JAMES HEDDON.

I do not believe that they do, but I do not positively know that they do not. Certainly I never saw the like. Queens lay eggs that do produce drones, and so do laying workers. But I have failed to see any evidence that laying workers ever ply their occupation of egg-laying in a hive occupied by a colony in normal conditions. I have noticed that sometimes, when a queen is introduced to a colony that has laying workers, the latter will go on laying for a short time after the queen is received, but it is not long till either the queen or the laying workers disappear. Perhaps there may be exceptions to this, as well as to other rules.—G. W. DEMAREE.

Yes, to all three questions. It is true that laying workers lay eggs which produce drones, but it is more than probable that the drones are worthless.—THE EDITOR.

Convention Notices.

☞ The Annual Convention of the Vermont Bee-Keepers' Association will be held at the Van Ness House, Burlington, Vt., on January 13 and 14, 1887. R. H. HOLMES, *Sec.*, Shoreham, Vt.

☞ The next annual convention of the Cortland Union Bee-Keepers' Association will be held in Union Hall, at Cortland, N. Y., on Jan. 12, 1887. D. F. SHATTUCK, *Sec.*

☞ The eleventh annual meeting of the N. W. Ills. & S. W. Wis. Bee-Keepers' Association will be held in the Grand Army Hall in Rockford, Ills., on the third Tuesday in January, 1887. There will be a two days' session. J. STEWART, *Sec.*

☞ The Northeastern Ohio, Northern Pa. and Western New York Bee-Keepers' Association will hold its 8th annual convention in Chapman's Opera House, at Andover, O., on Wednesday and Thursday, Jan. 19 and 20, 1887. First-class hotel accommodations are offered at $1 per day to those attending the convention. A general invitation is extended to all. M. E. MASON, *Sec.*

☞ The next annual meeting of the Nebraska State Bee-Keepers' Association will be held in Lincoln, Nebraska, on Wednesday, Jan. 12, 1887, at Red Ribbon Hall, commencing at 1:30 p.m. and continuing for 3 days. E. Kretchmer, of Coburg, Iowa, will deliver an address on Modern Apiculture. E. M. Hayhurst, of Kansas City, and many others from abroad are expected. Members can return on one-third fare over the B. & M., U. P. and M. P. lines, by securing a certificate of payment of fare to Lincoln, from the agent of their station. In order to secure the reduced rates on return trip, members holding such certificates must present them to the Secretary of the Bee-Keepers' Association for endorsement.
H. N. PATTERSON, *Sec.*

CORRESPONDENCE.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ↙O southwest of the center of the State mentioned.

For the American Bee Journal.

Big Crops of Honey—How to Secure.

M. M. BALDRIDGE.

There are two topics, just now, of immense importance to bee-keepers who make the production of honey their main support. One is how to secure big crops of honey; and the other, how to sell them for the most money. Being deeply interested in both topics, I have given them much thought and attention during the past twenty years. In this article I will try to show the reader how to secure big crops of honey, and of the very best quality. To do this we must have bee-pasturage in abundance, and of the very best kind, and a pasturage that we can rely upon every year.

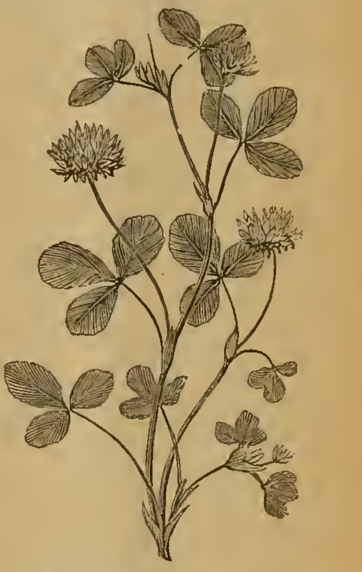
Desiring to be brief, I will at once direct special attention to Alsike clover as *the* honey plant for the Northern States and Canada. At the last meeting of the North American Bee-Keepers' Society, Mr. A. I. Root is reported as having said as follows: "If possible those plants should be raised for honey that have value aside from honey-production." And again, that "Alsike clover stands at the head of the list." It does not appear from the report of that meeting that these statements were disputed. At the Detroit meeting of the society, W. Z. Hutchinson reports the summing up of what was said there about Alsike clover, as follows: "Alsike can be grown with profit, as a honey plant, on land worth $50 per acre. It has yielded more than $25 worth of seed per acre."

Hon. Matt. Anderson, of Dane county, Wis., has 80 acres of Alsike at this writing. He has 20 acres that he harvested for seed and hay, the past season, and from which he got "110 bushels" of seed, and "at least 25 tons of good hay, after hulling, worth enough to pay all expenses of cutting and hulling." Some years ago he sold his "whole crop on the Board of Trade in Chicago for $11 per bushel."

I might go on and fill column after column of the BEE JOURNAL with similar quotations, but I forbear. After a careful survey of the whole question, I think I cannot do better, at this time, than to quote the following, prepared by myself, which appeared in the first issue of the BEE JOURNAL for 1881, and to direct special attention to the plan of having Alsike grown extensively *by farmers* within range of one's apiary; also to the comparative value of Alsike and the common red, *as a fertilizer*, as indicated by the roots, so accurately shown in the two engravings presented:

ALSIKE CLOVER FOR BEE-PASTURAGE.

Alsike or Swedish clover (*Trifolium hybridum*), as its name indicates, is a native of Sweden, where it grows wild—being both hardy and productive. It is commonly known by the name of Alsike, that being a parish in Sweden where this clover originated. It was brought into cultivation in Sweden about the beginning of the present century, was introduced into England in 1834, and soon thereafter found its way into the German States and other parts of Europe, and was finally brought into the United States, through the Patent Office, about the year 1853.



Alsike Clover Plant in bloom.

Alsike clover is regarded by botanists as a hybrid between our common red and white clovers. The stem and branches are finer and less woody than the common red, and when cut and cured for hay, it is perfectly free from fuzz or dust. It does not turn black, but remains the color of well-cured timothy. It has, as the following cut shows, numerous branches and a multitude of blossoms which are rich in honey. The bees have no trouble in finding the honey, as the blossoms are short and the heads no larger than white clover. The blossoms at first are white, but soon change to a beautiful pink, and emit considerable fragrance. The leaves are oval, of a pale green color, and may readily be distinguished at any stage of their growth from the white or red clover by the total absence of a pale white blossom on the upper surface of each leaf, a peculiarity unnoticed by previous writers.

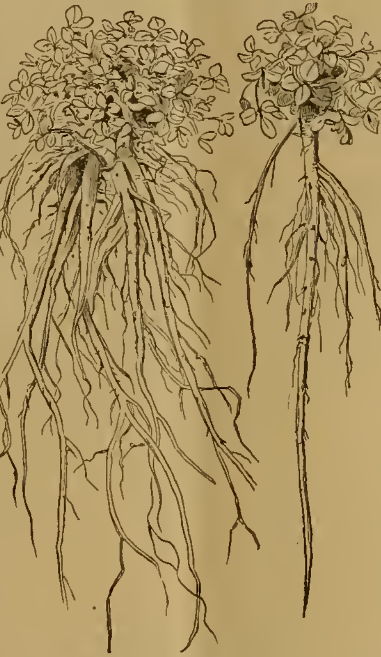
It ripens, in the latitude of Chicago, in the latter part of July, but needs not to be cut until August, if the weather should be unfavorable. The crop of seed is always obtained from this cutting, in which respect it is unlike the common red. It is not advisable to cut this clover more than once each season, but it may be pastured moderately during the fall. When cut for seed, it may be threshed from the field with a common clover machine; but, if more convenient, it may be stacked and threshed during the fall or winter.

Care should be taken in handling this clover, as the seed shells very easily; but this is looked upon as a point in its favor, as the land thus becomes re-seeded every year, and so early, that if the autumn proves to be a wet one, nearly every grain will germinate, and a fine growth of new plants will be secured for the following year. The seed is very fine—being about the size and shape of white clover—a pound containing, it is said, about 600.000 grains, or three times as many as the common red. The seed-pods contain 1, 2, 3, and sometimes 4 grains, which explains why it is so prolific—a moderate yield being from 150 to 200 pounds of seed to the acre.

When sowed by itself, 4 pounds of seed is a great plenty for an acre; but this is not the best plan to pursue, especially with our dry western prairies. It is much the better way to mix Alsike with timothy or the common red, or with both. When thus mixed, they are a help to each other. The Alsike, being a native of a cold climate, does not winter-kill, and besides, it acts as a mulch in winter and spring to the common red, and keeps the latter from being destroyed by the heaving-out process. As the red clover shades the roots of the Alsike, which grows close to the surface, it protects the latter from the effects of drouth. The timothy and red clover being both upright growers, lift and keep up the Alsike from the ground, which is very desirable. The stem of the Alsike is too fine to support its many branches in an upright position, and hence is more inclined to lodge than the common red. For the reasons given, the combination of the three named plants is very important, and will prove successful wherever tried.

When mixed, sow the usual quantity of timothy and red clover, and not more than 2 pounds of Alsike seed to the acre—in fact, 1 pound will be ample. If wanted for seed, it might then be best to use 2 pounds of Alsike to the acre. Timothy and red clover do no harm, as the crop may be cut so early that the Alsike will be the only plant ripe enough to furnish seed. Timothy seed being about the same size as the Alsike, cannot very well be separated from it; but such is not the case with red clover, as a fine sieve will quickly do the work.

Alsike clover, as a fertilizer, must be as good a plant as red clover, if not better, as an examination of figures 2 and 3 will show. Having often dug up specimen roots of both Alsike and the common red clovers for comparison and exhibition, fully as much difference in the size of the crowns and the quantity of roots and rootlets have been found as the cuts indicate. The representations are very accurate, and the reader will do well to examine them closely and note the difference, which seems to be decidedly in favor of the Alsike. Having now grown Alsike on a variety of soils for the past 17 years with good success, I know that what I have set forth in this article are facts and not theories.



Alsike Clover Root and Crown, average size, a year old.

Red Clover Root and Crown, average size, a year old.

But my main object in this article is to call special attention of bee-keepers to Alsike as a honey-plant. It is well known to the fraternity that my favorite honey-plant is melilot clover, than which none better has yet been found in the United States. But melilot will never be cultivated to any extent except by bee-keepers, as no farmer would think of such a thing as growing it for hay and pasture. But Alsike clover is a plant that every farmer can and should cultivate, whether he keeps bees or not, as it is superior to the common red, for hay or pasture, for all kinds of stock.

Now, let me indicate to bee-keepers what should be done, and that right speedily. Suppose you have 50 or 100 colonies of bees, more or less, then visit the farmers in close range and ascertain how many acres they intend to seed down to grass the following spring, and induce enough of them to sow at least as many acres to Alsike, timothy and red clover, as you have colonies. The more land you can thus get seeded down the better. Induce them, if possible, to buy the seed at the *cost* price, but if you cannot do this, let them have it at *half* the cost price, but if this fails, then make them a *present* of as many pounds as they will sow acres. They certainly could not and would not object to this last proposition, as it would be no more work to sow the grass seed mixed with Alsike than if it were left out. As the Alsike seed can now be purchased for about $15 to $18 per 100 pounds, instead of $75 to $100, the price when first brought here, a bee-range can now be supplied with one of the very best honey plants at a trifling expense. One hundred acres of Alsike, mixed with other grasses, in full bloom during June and July, in the neighborhood of 100 colonies of bees, would insure a large crop of the choicest honey every year, and cause the bee-keeper to swing his hat with joy. Now, if every reader of the Bee Journal will act upon this advice the present winter, hundreds of tons of the finest honey will be added to the crop of 1887, and I am quite sure you will thank me for calling your attention to the project; if so, I shall feel amply repaid.

St. Charles, Ills.

For the American Bee Journal.

The Honey Markets, etc.

DR. C. C. MILLER.

On page 772 of the Bee Journal for 1886, the editor says: "Will Dr. C. C. Miller, who has had a theory about publishing honey markets for years, tell us what he thinks about the matter proposed by Mr. Baldridge?"

I am very glad indeed to talk about a matter of such vital importance to bee-keepers. First, as to my "theory" of which friend Newman speaks: It was a very simple one, namely, that the bee-papers should give us as full information as possible about the different honey markets, especially the large cities, with the prices at which commission men were selling, etc.; in short, my theory was that the papers should do just what they have since more or less perfectly carried out.

Right here I want to thank Bro. Newman for his last improvement in adding dates to the market reports, which, in my estimation, add fully 100 per cent. to their value. What is now wanted is to have these reports correct—a difficult thing to achieve. I think an organization such as Bro. Newman speaks of on page 723, might be a good thing. But I am not very sanguine about its consummation. Bro. Newman says: "As this matter is one that interests every bee-keeper in America, we may reasonably expect that they will take hold of the matter in such a way as to bring it to a successful issue." Bro. Newman, I'm afraid they just won't. I was somewhat sanguine over this matter of being informed as to the supply, and thus properly controlling prices, and a few years ago I was appointed one of a committee to obtain for the North American Bee-Keepers' Society statistics from the bee-keepers of North America. We thought "as this matter is one that interests every bee-keeper in America, we may reasonably expect that they will take hold of the matter in such a way as to bring it to a successful issue." But they didn't; and that, too, when all that was required of them was an expense of one cent each for a postal card. Besides, look at the apathy with regard to the Bee-Keepers' Union. Mind you, I am not saying anything against the project, but only of the apathy that prevails, and if there is a meeting in Chicago to talk it over I expect to be there.

Mr. Newman says: "To make the North American Bee-Keepers' Society such a central body would be very easy." True, "the united wisdom of apiarists ought to be able to devise the ways and means and make a success of such an institution." Very true; and perhaps they will, in spite of all my croaking.

Perhaps it is premature to discuss what they should or would do, in case such an organization were completed, but as suggestions are already made in that direction, at least by implication, it may be well enough to give a slight glance at them. Mr. Baldridge says: "Every important trade or business, almost, has an organization to control, to limit production, or to fix prices, but the honey-producers have none!" Limiting production and fixing prices might be all right, and it might be all wrong. Indeed, I am not sure that limiting production could in any case be right. I am not very familiar with the matter, but I have very serious doubts whether the action of the coal monopolists is a righteous proceeding.

Mr. Baldridge is a man of bright thoughts, and one who was an apicultural writer more than 25 years ago, when I was going to my neighbor to find out what disaster was threatened to my bees when I found the gnawings of cappings on the bottom-board. But is he not looking altogether on one side of the commission business. If I understand him rightly he thinks "the wholesale commission dealers are a *curse* to honey-producers," and that we should sell "on commission only" to the consumers. The objection seems to be to the commission men in the large cities. Well, commission men have enough sins to answer for, and some of them may be a bad lot, but really I would not like to see them all wiped out. There are good men among them, and I hardly feel like laying our sins at their door. I had once a conversation with one of them, who, in one sense, was "a curse to honey-producers," and yet I do not believe he was to blame for it. I knew him well from a boy, and I believe him to be an honest man, and he told me that people shipped him honey when he did not want it, and he just had to sell it for anything he could get for it, to get the dauby, sticky stuff out of the way. He did not want to handle it. Now you see this helped to demoralize the markets, just in the same way as the man bringing in his pailful of broken honey into the home market and selling it for almost nothing; and yet the commission man was not to blame.

In many cases, perhaps in all, Mr. Baldridge's plan of selling on commission in the home markets is good, especially extracted honey—I am not so sure about comb honey. But it will not do in that case, as he says, to let the commission man fix the price. Neither are you any more obliged to let the commission man in the city fix the price. You can, and some producers do, fix the price below which he dare not sell, and I have never yet found any difficulty in getting him to obey instructions. So the difference between the commission man that Mr. Baldridge wants us to establish, and the one he wants us to abolish, is simply a difference in our own way of dealing. Of this and published reports I may have more to say again.

QUEEN-TRAPS AND SWARMING.

I can hardly tell what I was thinking about when I answered Query, Number 347. Very likely I had in mind using the traps to prevent swarms going off the first time issuing, thus saving the expense of a watcher, as I had been studying and corresponding about this. But to prevent swarms altogether the trap would be much worse than useless. I have tried something like it a number of times by caging the queen in the hive, and it was a dead failure every time. Indeed, with a queen free in the hive, but with its wing clipped, they will kill the old queen and swarm with a young one. I should much like to be considered a veteran, but I do not quite want to be considered in my dotage yet, and I am afraid I shall if I answer many queries as carelessly as the one referred to.

Mr. Hutchinson thinks "it is better to control or prevent the desire" for swarming. Mr. H., you cannot do it. There is the "chip" on my shoulder; knock it off, if you dare.

Marengo, ♂ Ills.

For the American Bee Journal.

The Illinois State Fair.

J. V. CALDWELL, (125–208).

If any bee-keeper of the State has attended our State Fair, as I have done the past four seasons, he could not fail to notice the meager display in the bee and honey department. The writer sent a few nice crates of honey last season, which with one or two other small displays constituted the entire show from the great State of Illinois, which annually produces tons upon tons of the finest honey in the world. Of course the premiums offered by the State Board have been too small to offer us much inducement, but on the other hand the bee-keepers of the State have given the Board but little encouragement to get out a more liberal premium list for bees, honey, etc. Now, fellow apiarists, let us bestir ourselves at once and see if we cannot show our brethren in Iowa and Michigan that we have the interests of our calling at heart.

The Board will soon meet to revise the premium list for 1887, and if we do anything it must be done soon. I would suggest this plan: Let any bee-keeper who can make an exhibit next fall, or who may be acquainted with the member of the Board in his own district, write them at once, calling their attention to the matter, and urge them to favor a larger and more liberal list for bees, honey, etc. I have already written to Hon. Samuel Dysart, President of the Board, and with whom I am acquainted, calling his attention to the business, and also sent him a sample premium-list something like the Michigan State Fair list; the Board will, therefore, have an idea of what we want them to do. I think the State Board meets early in the year, so we must attend to the matter at once, and if they meet at any point where the Editor of the Bee Journal can conveniently reach them, I suggest that he attend the meeting and urge the society to help us.

Cambridge, ⊸ Ills.

[If the Board meets in Chicago, and we are informed of the time and place, we will attend the meeting.—Ed.]

For the American Bee Journal.

Honey for all—No Monopolies.

JULIUS TOMLINSON.

On page 723 of the Bee Journal for 1886, is an editorial deprecating the sale of honey by country people, at what is called ruinous prices, thus breaking down the local honey market, and compelling the "apiarist" to send his crop away for sale.

Let us see. "The bee-keeper from a distance" has, say from 50 to 200 pounds of honey. Of course he wants to sell it. He needs the proceeds to help out his scanty income. So he brings it to town. He finds the market supplied by the "apiarist." No dealer wants it. What shall he do? He cannot go to town every day—he does not want to take his honey home. He had calculated on the proceeds, and he feels that he must realize something. So he does the next best thing—"retails" it all over town. Now I fail to see anything wrong or dishonorable in this. This is a free country, and we must all of us take the chances of competition. The "apiarist" in this place has the same thing to contend with, only this difference, that the "apiarists" near by, men who have honey by the ton, break down our market. But we have this compensation, that the consumer gets cheaper honey, and people, who seldom taste of honey, are induced to buy, and finding it good, will buy again and again.

But to remedy this state of things, a closer bond of union is advised, to protect each other's interests, and to "organize for protection." It is thought that "the united wisdom of apiarists ought to be able to make a success of such an institution," and the recent Michigan State convention was called upon to "discuss" the scheme and "take the matter in hand." Now I have no objection to discussion, but as to taking the "matter in hand," I am glad the Michigan convention did no such thing. For such a scheme, if undertaken, would surely fail. The "bee-keepers from a distance," and there are multitudes of them, could never be reached by such an organization, and if they could, no pursuasion would induce them to join it. All such combinations are, in their nature, monopolies, and opposed to public policy; and no monopolies are so odious as those which seek to make scarce and dear the food products of the world. We have too much of this monopoly business in this country now, and this, with the most bare-faced class-legislation has brought many an honest toiler to penury and want.

Three-fourths of the food products of the world are consumed by the toiling poor, and if the products of our apiaries ever attain to the dignity of a prime necessity, it must be within the reach of tne humblest toiler. And whether we like it or not, this is the tendency of the honey markets to-day.

With prime extracted honey, in Chicago, at 5 to 7 cents per pound, and in other cities from 3 to 4 cents; and prime sugar from 5 to 6 cents per pound, and with the increased production of sorghum, how is it possible to advance prices by a combination? The tendency certainly is to still lower prices. Shall our honey be a necessity on the table of the poor, or only a luxury for the rich? This is the conundrum which the "combined wisdom of apiarists" is called upon to solve.

God, in his good providence, has filled His flowers with the precious nectar, with a lavish hand. He intended that honey should be plenty, and cheap. With our improved processes and fixtures, and increasing knowledge of the nature of the honey-bee, there is practically no limit to the production of honey. There is now an hundred-fold more honey produced than 25 years ago, and it is safe to assume that this increased production will go on in an accelerated ratio. And you, Mr. Editor, are doing your utmost through your most excellent paper, to help on this increasing production, and thus aiding a kind Providence in supplying His poor with this precious food. It is surprising, therefore, to find you in opposition to your life work, by advocating a scheme to make scarce and dear that which God intended should be plentiful and cheap.

Allegan, ♀ Mich.

[We desired to have this matter fully "discussed." Bro. Tomlinson has presented his view of the question very clearly. Some are presenting "the other side" quite forcibly; while others express their "doubts." We simply outlined a plan for such organization, *if it was decided to have it formed*—but strenuonsly advocated a thorough *discussion* of the merits of the subject before any move was made. We are always on the side of the honey-producer, in any measure which is proposed in the interest of the pursuit; and it would, indeed, be "surprising" not only to our Bro. Tomlinson, but to ourself, to find us in "opposition" to our "life work." *But such is not the case by any means*, except as vainly *imagined* by Bro. Tomlinson.—ED.]

For the American Bee Journal.

Flavor of Honey, its Recommendation.

W. E. BOGARDUS.

On page 760 of the BEE JOURNAL for 1886, is an article entitled, "Adulterating Comb and Liquid Honey." It was written for the *American Grocer*, to inform the subscribers of that paper about the honey they buy and sell. The writer assumes that extracted honey is no longer adulterated with glucose; that glucose is more likely to be adulterated with honey.

A traveling grocer sells a good deal of honey for me. Last year, he sold both comb and liquid; this year I have limited him to comb honey, having, comparatively, but little liquid honey, only that which I extracted from imperfect sections. Sometime ago I told him that he would find a case of honey ready for him at my house. "By the way," said he, "can't you let me have some extracted honey? I bought some in New York the last time I was there. They may talk to me about their cheap honey!" Then, with a change of countenance and a shrug of the shoulders, and a tone of voice expressive of deep disgust, he added: "But, my gracious! it hasn't any taste at all. There's a bottle of it! It looks beautiful, as nice as yours, but I want no more of it. I shall get rid of this as soon as possible."

Its appearance was certainly inviting. I glanced at the name of the firm, and wondered what it was? It reminded me of some corn-syrup which I saw a few years ago at a certain dealer's in New York, in which there floated a comb of white clover honey. I was told it was on exhibition because it promoted the sale of genuine honey. A novice without the guidance of an expert, would have preferred it. It was not necessary for me to say anything to the grocer, except that I would try to supply him.

A druggist in Paterson said that he once manufactured some liquid honey, in which there was not a drop of the real article, and sent it to New York to be tested. It was pronounced *genuine*. Naturally, and justly, that verdict destroyed his confidence in their extracted honey.

Now as to comb honey: Of course *that* cannot be changed after it leaves the apiarist, and, therefore, must be pure, unless the bees were fed sugar or glucose. But there is a great difference in the taste of the varieties of so-called white clover honey. Beautiful white honey, in profuse abundance, is retailed here at 18 cents per pound, and yet there are grocers who pay me for prime sections, 20 cents per pound at wholesale, because, as they say, they have customers who will buy no other.

A gentleman from New York called this fall to purchase honey. He was a last winter's customer. Said he: "Recently I bought some very nice looking honey in New York as a present for some friends in the country, whom I was visiting. I was disappointed, for it was so far inferior to your honey in flavor. I have a nephew in Paterson who purchased a ton of nice looking comb honey in Western New York, at 12 cents per pound, which he retails at 18 cents, but it does not suit me." He paid me 25 cents per pound, and was perfectly satisfied.

I do not, of course, question the honesty of apiarists, knowing that no sweets enter *my* hives but those which the bees gather from natural sources. The yield of honey in this section is not so large as in some other sections, but I doubt whether the quality can be excelled; and certainly *that* should count for something. The price of honey, evidently, should be graded as far as possible, not simply according to appearance, but far more according to flavor.

Oakland, ♂ N. J.

For the American Bee Journal.

Disturbing Bees in Winter, etc.

DR. A. B. MASON.

Having been so universally successful in wintering my bees for so many winters, it may not be uninteresting to some to learn of some of my bad "luck." I have thought of it whenever I have read or heard it said that disturbing bees in winter was a benefit to them. Such has not been my experience.

In November, 1883, my bees were placed in the cellar, which was under the kitchen. The hives were piled in tiers, five high, one end of the pile being under a door that we came in at from out-doors, and of course more or less stamping of the feet to remove snow was done here. The top of the upper tier of hives was not more than a foot from the floor, and were only covered with a honey-quilt. I noticed, sometime after the snow came to stay, that there was a large number of dead bees on the cellar-bottom, and I began to look for the cause. One evening, while removing dead bees from the entrances of the hives, some one entered the kitchen door above, stamping on the floor, and the bees under the door gave a very thorough buzz at every stamp, and the buzzing was less and less intense as the colonies were further from the door; the bottom tiers under the door not being disturbed at all. If the stamping was continued for a little while some of the bees would put in an appearance at the entrance. A few of the hives were entirely emptied of bees, and many more colonies were very materially weakened.

Perhaps it is unnecessary to mention that the combs in all these colonies, except some experimental ones, were left in good condition, with plenty of honey, and with no signs of diarrhea. Some may wonder why the combs were not fouled with diarrhea, but to those who know that for the last seven winters I have wintered my bees without bee-bread, the reason may be plain. But as we have been told that "the pollen theory has gone," I suppose this method had nothing to do with that theory, nor the theory anything to do with the lack of diarrhea.

Although I am taking five bee-papers, and like them all, still I find that I am more anxious about the arrival of the "old reliable" AMERICAN BEE JOURNAL than any of them. I have taken it so long that it seems like an old friend; and it seems to me to get better with age.

Auburndale,⊸ Ohio.

For the American Bee Journal.

Legislation for Bee-Keepers.

25—J. R. ROEBUCK, (35-84).

While a number have written upon this subject, there is, however, a certain feature of it that has not yet been mentioned. We need a stringent law protecting the bee-keepers against open cider-mills and the pomace therefrom. I know that thousands upon thousands of bees are needlessly killed; sometimes so many are killed as to deplete colonies, so that it is very uncertain of successful wintering; but even if wintered, a colony will be so weak in the following spring that it will take until after the honey season is over to become populous enough to gather surplus, or to commence again at the cider-mills, and go through another siege, until finally it becomes exhausted, and a loss of the colony is the result. Again, should the bees be confined for a long winter season, diarrhea from the use of cider as food will kill them before spring.

Now what shall be the remedy? While I am opposed to special or class legislation, I cannot see any wrong in asking protection against an evil that needlessly exists; and when two or more industries conflict, it becomes the duty of our law-makers to harmonize the surroundings of each so as to give them equal rights and protection. Bees will go to open cider-mills and we cannot possibly prevent them (at least I cannot). Cider-mills can and ought to be protected against the bees by tight buildings and screens, and the pomace from the apples can be disposed of so as to not injure the bees.

While I ask for a remedy I will also propose one. Let all bee-keepers circulate petitions for signatures, and present them to our legislatures, asking for a law that will compel cider-mill men to screen their mills and dispose of the pomace so as not to be exposed to the injury of bees. To effect a thorough canvass, it would be a great help to have all of the bee-papers print petitions and enclose one in each paper, with the request that subscribers procure signatures and return the petitions to the editor of such papers, who in turn ought to arange with a member of the legislature to have the same enacted into a law. I should like to hear from others. This, to me, seems a legitimate undertaking, and should be pressed immediately, as the State legislatures will soon be in session.

Burton City,♂ Ohio.

[Such blank petitions cannot be enclosed in the bee-papers. It is positively prohibited by the Postal Regulations. It will take but a few minutes to write the heading on the sheet of paper, to be used for signatures, and each person circulating the petition should send it direct to the member of the legislature for that district, requesting his influence to have such a law enacted.—ED.]

For the American Bee Journal.

Are Bees Trespassers?

J. E. POND.

This question is one of some little importance at the present time, as upon the answer thereto depends the future of the industry of bee-keeping. In answering, the only practical view that can be taken, in the legal aspect of the case; as upon the law depends the whole matter.

It is a great fundamental principle both of law and of equity, that a man has a right to do what he chooses; to enter into and engage in any business he pleases, provided, however, that in so doing he does not injure or trespass upon any other man. So we may assume that any man has the natural right to keep bees; but not the legal right, if it can be shown that any other person is injured by his so doing. It is not to be assumed, however, that any fancied complaint will be considered as constituting a nuisance; the complaint must be general. The law realizes that men are human, subject to the sway of passion, and liable to complain through spite, or to satisfy a revengeful spirit; and for that reason a cause will not be adjudicated a nuisance unless it is general in its effects, and is an injury to the many instead of one.

A trespass to an individual may be a nuisance to him, but would hardly be considered a common nuisance. The form of the statute in this State, follows the common law form, and is as follows: "To the great damage and common nuisance of *all* persons there passing, inhabiting or being." Apply this to our bees, and it will be seen that each case must be individual; that the law of trespass may apply in many cases, but the law of nuisance seldom if ever; and that to show a nuisance will require evidence of the strongest nature and character. Some things are made nuisances by statute; unless so defined, it must be fully and affirmatively shown, and of more than ordinary nature to convict.

I can conceive that bees may be so kept in thickly settled towns as to constitute a nuisance, but the cases will be rare, and will not happen with bee-keepers of intelligence. Each one of us must take the matter home, and see to it that the general good of bee-keepers is not injured by individual action.

Foxboro,⊶ Mass.

Convention Notice.

☞ The New York State, the Eastern New York and the New Jersey & Eastern Bee-Keepers' Associations will hold their great united convention at Albany, N. Y., on Jan. 11, 12 and 13, 1887. This convention will be one of the largest, if not THE largest, ever held anywhere in this country, and it behooves every bee-keeper to attend. A grand exhibit of apiarian fixtures is promised. Among the subjects to be brought before the convention are the following: Alsike Clover as a Honey-Plant, by C. M. Goodspeed: The Chapman Honey-Plant, H. Chapman; Rendering Old Comb into Wax, Ira Barber; Extracted Honey, Dadant & Son; The Middle-man in the Wholesale Market, C. F. Muth; Cause of late Depression of the Honey Market, L. C. Root; Bee-Keeping by Woman, as an Occupation, Mrs. L. M. Thomas; Bee-Papers and the Supply Trade, John Aspinwall; Scientific Ventilation of Bees in Winter Repositories, P. H. Elwood: Overstocking the Honey Market, Capt. J. E. Hetherington; Outlook of Bee-Keeping in the Future, A. E. Manum; Conventions as a Means of Promoting the Financial Welfare of Bee-Keepers, James Heddon; Separators, N. N. Betsinger; Bee-Keeping as a Science, Arthur Todd: Advantages and Disadvantages of Patent Rights to Bee-Keepers, G. M. Doolittle; The Bee-Hive of the Future, R. F. Holtermann; and Foreign Honey Market for North America, S. T. Pettit. The head-quarters of the Convention will be at the Globe Hotel, State St. cor. of Pearl; Board $2 per day. Board at the Kimball House, 69 Washington Ave., $1 per day. All who desire to secure board at either of these hotels, will please inform Mr. Jno. Aspinwall, Barrytown, N. Y., at once.

GEO. H. KNICKERBOCKER. *Sec.* N. Y. State.
JOHN ASPINWALL, *Sec.* Eastern N. Y.
F. E. JOHNSON, *Sec.* N. J. & Eastern.

We Ask every subscriber to promptly renew his subscription and at the same time induce a neighbor to take it, by convincing him that it is *for his interest* to do so. By inducing your bee-keeping neighbor to take the BEE JOURNAL for 1887, you will be doing yourself a duty, because he may thus be educated so as not to ruin your market for honey by selling his at a ruinous price, for lack of knowing its *real* worth. This matter of marketing honey will be fully discussed in these columns duing the next two or three months, and no one interested in honey-production can afford to do without its weekly visits.

Can you Use a Few Samples to advantage in getting up clubs—just send a postal card to this office for them, saying how many you desire, and we will cheerfully send them. A favorable word from our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter correct apicultural knowledge and promote the welfare of our pursuit.

Local Convention Directory.

1887. *Time and place of Meeting.*

Jan. 8.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Jan. 11-13.—N.Y.State, E.N.Y., &c., at Albany, N.Y.
Jno. Aspinwall, Sec., Barrytown, N. Y.

Jan. 12.—Cortland Union, at Cortland, N. Y.
D. F. Shattuck, Sec., Homer, N. Y.

Jan. 12.—Nebraska State, at Lincoln, Nebr.
H. N. Patterson, Sec., Hnmboldt, Nebr.

Jan. 13.—Vermont, at Burlington, Vt.
R. H. Holmes, Sec., Shoreham, Vt.

Jan. 13.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

Jan. 18.—N. W. Ills. & S. W. Wis., at Rockford, Ills.
J. Stewart, Sec., Rock City, Ills.

Jan. 19, 20.—N. E. Ohio, N. Pa., &c., at Andover, O.
M. E. Mason, Sec., Andover, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees Wintering Well.—J. W. Bittenbender, Knoxville,♀ Iowa, on Dec. 20, 1886, says:

Bees are wintering well so far. The coldest was 14° below zero. We have 3 inches of snow now, and fair weather.

Bees did Well.—J. A. Rickenbacher, Gahanna,⊙ O., writes:

Bees did well in this locality last summer. I commenced with 8 colonies in the spring, and I now have 22 good ones; 2 swarms absconded. Excepting three, all the increase was secured by natural swarming. The three were made by the nucleus plan. I have taken over 400 pounds of honey, about 170 pounds of which was comb honey, and the rest extracted. I sold my comb honey at 20 cents a pound, and the extracted at 15 cents a pound, in 3-pound cans. I could have taken more honey if I could have given my bees the proper attention. They have plenty to winter on. The past summer was a very dry one, but it did not appear to affect the honey-flow any. On the last of September we had a heavy frost which killed all the fall flowers.

Over-Doing the Bee-Business.—D. R. Rosebrough, Casey,○+ Ills., writes:

I believe that bee-keeping will never be overdone in this country. It requires men of pluck to make it a success; it will never be overdone by lazy men, or by women entering the ranks of bee-keepers, for their is too much hard work connected with it. Mixed farming will not interfere, for in such cases the bees are nearly always the most neglected. Farmers engaging in the business will not influence it any; they are my best honey-customers, and the only ones that want bees; but they do not take care of them, so there are no more bees in this county now than there were 16 years ago. Four years ago in this little village there was not 1,000 pounds of honey produced annually; this year there was 5 tons. Selling honey in one's home market is a slow way of disposing of it, but it is a sure way. It will not be overdone by specialists, for there are too many who think there is a fortune in the busiuess, till they have tried it and found that it did not pay them. It is true that honey is cheap, but so are beef cattle, pork and wages. I am not discouraged, for if no calamity overtakes me, I will have 5 tons of comb honey next year, as I usually double my crop every year.

Slats in Honey-Board, etc.—F. M. Johnson, Augusta,○~ Iowa, on Dec., 13, 1886, asks:

Will Mr. Heddon explain why slats in a honey-board cannot go crosswise of the frames as well as lengthwise? Using lath, and having no joints to break, there will be so much chance for brace-combs between the frames and slatted board, etc.

[Mr. Heddon replies thus: "In the first place laths are unfit to work into any part of a bee-hive. The slats of a honey-board should be smoothly sawed, and be far more uniform than laths. The objection to having the slats run crosswise of the frames is that the openings or joints are not completely broken, and after you have used this principle, you will never try to do without it."]

An Average Season.—B. Z. Smith, Tuscola,○+ Ills., on Dec. 28, 1886, says:

The honey crop the past season was an average one for this locality. I secured 5,000 pounds of comb honey which averaged 11 3-5 cents per pound here. I put 150 colonies in a brick cellar made especially for bees. It has an 8-inch sub-earth ventilator 120 feet long, and an escape pipe 4x6 inches inside, running up through a honey-house. Give us the commission-men's reports for awhile yet, any way.

Selling the Honey Crop, etc.—Geo. Spitler, Mosiertown,⊸ Pa., writes:

The general complaint of bee-keepers is that the season just past has been a poor one for honey as well as increase, though a few apiaries have had a large increase in colonies, and some individual colonies did well in gathering honey. I notice that some correspondents complain of not being able to sell honey. I have no such complaint to make, but of course I have to sell my product at 12 and 12½ cents, both wholesale and retail, at the door; while what is sold at the stores at wholesale brings the same. Owing to the sale of honey by those who produce but little, at a low price, all have to sell at the same price, or else be called—mean. Some of us are expecting to meet with losses on account of bees having stored honey-dew.

The Market Reports.—F. A. Snell, Milledgeville,⊸ Ills., says:

In regard to market reports, I am in favor of continuing them until we get something better. Other papers quote prices of honey, and why should we not be posted as bee-keepers through our own papers? The American Bee Journal quotations have been a help to me in selling in our towns here at home. Grocers aim to be posted.

Bees in Fine Condition, etc.—Alfonso B. Bray, Bois D'Arc,♀ Mo., on Dec. 24, 1886, writes:

I am a small boy beginning to keep bees. I now have 12 colonies, and had only 6 last spring to start with. I have taken off 700 pounds of surplus honey from the 6 old colonies. My bees are in fine condition, their stores being sufficient to take them through the winter. I very much agree with Henry W. Haag, page 810 of the Bee Journal for 1886, that something must be done to protect bee-men. The case is the same in this locality. There are so many that sell their honey for a trifle that there can be but little profit in the business. Let us unite and stick together for the next year; the resnlt will be in our favor.

Fixing the Price of Honey.—E. Rood, of Fargo,♂ Dak., says:

There is something wrong in allowing middle or commission men to fix and advertise the price of honey for the producer.

Outlook Good for Wintering.—S. M. Cox, Alvarado,♂ Ind., on Dec. 21, 1886, writes:

I started with 23 colonies last spring, increased them to 64, and took 1,300 pounds of comb honey and extracted 100 pounds. I disposed of 11 colonies, and now have 40 packed in clover chaff on the summer stands. I expect to pack the rest as soon as the weather is favorable. I think the outlook for wintering is good, and I hope to be able to make a better report next year.

Chaff Hives for Wintering.—4—John Davis, (29), Allison,○~ Ills., on Dec. 21, 1886, says:

I commenced last spring with 16 colonies, increased them to 29, and got 600 pounds of comb honey, for which I received 15 cents per pound; and 300 pounds of extracted honey, for which I received 8 cents per pound. I have kept bees for 4 years, and never lost any in wintering. I keep them in chaff hives on the summer stands. I would like to see reports from bee-keepers who use chaff hives.

Starters in Section and Brood-Frames. — Samuel Cushman, Pawtucket,♂ R. I., writes :

Dr. Tinker, in his reply to Query, No. 345, says that he gives swarms brood-frames with starters only, and also sections with starters. Will he tell us why he does not use full sheets or full combs in the sections, instead of starters?

[Because it does not pay me to do so. I sell all of my honey here at home, and must produce a fancy article or lose prestige and custom. I have had many sections filled on full sheets of the best thin foundation obtainable, and I have not been able in a single instance to produce an article that would not excite suspicion that it was partly an artificial product. The presence of the foundation would be detected by the yellow cast in the centre of the comb, and often by the foundation sticking to the teeth in eating. The wax of natural comb never sticks to the teeth in eating. I use and recommend full sheets of brood-foundation in building up colonies in the spring, and at other times, but I use only starters 2 inches wide for swarms. I prefer starters 1 inch wide for sections.—G. L. TINKER.]

Season Shortened by Drouth.—Wm. Gemmill, Shannon,⊸ Ills., on Dec. 23, 1886, says :

I commenced the season of 1886 with 45 colonies of bees, increased them to 76 by natural swarming, and had about 2,500 pounds of comb honey in two-pound sections, and 500 pounds of extracted honey. I have 74 colonies now in the cellar in good condition. The past was a fair season, but cut short by drouth.

Large Surplus Crop.—Frank McNay, Mauston,⊙ Wis., on Dec. 25, 1886, says :

My four apiaries are in excellent condition for winter, after storing a surplus of 25,000 pounds of honey.

Cellar-Ventilation, etc.—Wm. Hill, Prophetstown,⊸Ills., on Dec. 21, 1886, writes :

I had 25 colonies in the spring which I increased to 45, by natural swarming. I put my bees in the cellar on Dec. 3. We had one cold night before I put them in, and they became somewhat frosty, but they have dried out nicely, and are now very quiet. I keep the temperature as near 45° as I can. They seem to be the quietest at that degree of temperature. I had 3,900 pounds of honey the past season, 1,200 of which was extracted, and the balance comb honey ; and average of 156 pounds per colony, spring count. I ventilate my cellar with a 3-inch pipe that connects the cellar with a chimney. When it gets very cold I intend to shut off a part of the draft, or all of it, so as to keep the temperature as near 45° as possible.

Favorable Winter so Far. — W. Mason, Fillmore,⊸ Ind., on Dec. 27, 1886, writes :

So far we are having a very mild winter. Several times snow has fallen, but not deep. Bees on the summer stands are doing well this winter, and as a rule they have plenty of stores. I look for good reports in the spring, if the winter continues favorable. I weighed a part of my colonies on Nov. 12, and the rest on Nov. 25, and stored them in a bee-house. To all appearances they are now in fine condition. My colonies run a little below the average last fall. My bees reared a large crop of brood in August and September, there being a few swarms cast as late as Aug. 27. The fall crop of surplus honey was lost by the over crop of fall brood, and no doubt it will require more winter stores on this account.

The Honey Crop of 1886.—E. F. Meeker, Duncan,⊙ Ills., on Dec. 23, 1886, writes :

I started last May with 80 colonies of bees, and I have increased them to 131. I took off 11,000 pounds of honey, 7,000 pounds of which was in one-pound sections. My crop is nearly all sold. I have all races of bees, and have been cross-breeding for the past three years.

The Season of 1886.—R. Bacon, Verona,⊙ N. Y., on Dec. 22, 1886, reports as follows :

Failures attended the most of our bee-work through the past season in this locality. Spring opened quite well for bees, but later everything in their line changed. White clover, which looked very promising in the start, failed to yield much honey; basswood was almost a total failure, and we got but few swarms. Very many colonies had to be fed for winter, and the small crop of honey secured had to be sold very cheap. Taking it all in all, it was a hard year for bee-keepers, and makes them feel a little discouraged.

Raising the Price of Honey.—Mrs. L. Harrison, Peoria,⊙ Ills., says :

I have a favor to ask of the "Honey Producers' Association," when it meets at Chicago, and it is this : Will they please raise the price of corn? Dry corn, raised last year, only brought 28 cents per bushel in central Illinois, at the nearest railroad station ; the corn was raised on land worth $65 per acre. Honey is low, but no lower than other produce, and the business was never on a better basis than at present. Little more than ten years ago, honey was seldom seen, and only inquired after at drug-stores. But now it is handled by all first-class dealers in groceries. The business is not overdone ; there are thousands of men, women and children in the United States who never tasted honey. People do not buy molasses, as they did a score of years ago ; they are afraid of everything in the form of syrups, and honey is silently taking their place. I would like to see the price of honey higher, but all the "resolves" of producers will not affect it more than the Pope's bull against the comet.

Winter Stores.—John Baldwin, Steamburgh,⊸ Pa., asks :

Some of my bees in the cellar are short of stores, and I feed them once a week, by turning half-a-tumbler of syrup on the bees and combs. Is that right?

[While the plan you have adopted has been successful in many instances, enough good honey for winter stores should have been "laid by" in the combs, early in the season.—ED.]

Prices of Honey—Double-Walled Hives.—A. W. Fisk, Bushnell,⊸ Ills., on Dec. 27, 1886, writes :

I read with interest Mr. Baldridge's article suggesting the idea of organizing a union convention for the purpose of taking measures for protection against the ruinous low prices for honey. It is my impression that a convention of this kind, properly organized and managed, would benefit us more than any other organization, and I hope this subject will be freely discussed, and some wise measure devised to put up, and keep up, the price of honey. We are experimenting here with double-walled chaff hives, and I think if they are properly constructed they cannot be excelled for summer and winter protection and management. I am wintering a colony of bees in a double-walled hive. I have 6 colonies in double-walled plastered hives, and some in double-walled chaff hives, all on the summer stands. I also have a few bees in single-walled hives in the cellar, and all are doing well so far, although we have had no very severe weather.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., 40 cts. ; per hundred, $2.50. Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS.
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

The Report of the Indianapolis Convention is now published in pamphlet form, uniform with that of last year. It will be sent postpaid for 25 cents to any address.

We have also bound it up with last year's, together with the History of the Society; this we will mail for 40 cents. Or if you send us one *new* subscriber (with one dollar) besides your own renewal, we will present you with a copy by mail.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Reader, do you not just now think of one bee-keeper who does not take the Weekly BEE JOURNAL, and who should do so? Perhaps a word or two from you will induce him to do so. Will you not kindly oblige us by getting his subscription to send on with your own renewal for next year? When you do so, please select any 25 cent book in our list, and we will send it to you post-paid, to pay for your trouble. We are aiming to get 5,000 *new* subscribers for 1887,—will you not assist us to obtain them?

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

As a premium to the second largest club we will send my mail, postpaid, a copy of the "Farm Account Book," worth $3. The postage is 20 cents.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We anticipate a largely increased list of subscribers for 1887, as $1.00 cannot be invested by any bee-keeper that will bring him better returns.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

◆

Frank Cheshire's new book on Bees and Bee-Keeping, can be had at this office.—Vol. I, bound in cloth, $2.50, postpaid.

◆

Premium Worth Having.—The New York *World* and the AMERICAN BEE JOURNAL (both weekly) will be sent for one year to any address in North America for $1.90. And in addition PRESENT to every such CLUB SUBSCRIBER a "History of the United States," containing 320 pages and 22 fine engravings, bound in leather and gilt.

This "History" will be sent FREE by express at the subscriber's expense; or will be mailed for 10 cents extra to any place in the United States or Canada.

It is arranged chronologically by years, from 1492 to 1885. Every event is narrated in the order of its date. These are not confined, as in other works, to political matters, but embrace every branch of human action.

This premium is worth the whole of the money sent for both periodicals, and should induce thousands to subscribe, and thus get two unrivalled weeklies for nothing.

◆

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principle, and is the only system that can ever relied upon, because no other conditio exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Fifty-Two Dividends from the investment of one dollar is just what every subscriber of the AMERICAN BEE JOURNAL receives. Can any better interest be found for the investment of one hundred cents? If so, where?

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

Our Book Premiums.—To encourage all our present readers to get one or more additional subscribers we will present 25 cents' worth of books for every new subscriber (accompanied with $1 for one year's subscription), sent direct to this office. Thus for five new subscribers with $5, the getter up of a club gets $1.25 in valuable reading matter, to be selected by himself from our list on the second page of this paper. It will pay you to devote a few hours to the interests of the BEE JOURNAL. Every one who keeps bees ought to take it. We will furnish sample copies *free* in any quantity to those who intend to get up clubs. We expect to get 5,000 *new* subscribers for 7.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	3 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

As Bread is the Staff of Life, so is judicious advertising the staff of business! You may as reasonably expect one "good square meal" to suffice for three months, as to expect one advertisement to bring in business for that length of time! Many persons cannot remember anything longer than about seven days. To stop advertising in a dull season, is like tearing out a dam because the water is low—either plan can but result in disaster.

Enterprising queen-breeders and supply-dealers know the value of advertising "all the year round." Persistently keeping their name and business continuously before buyers, will eventually place them on the successful side, if they have a valuable article to sell.

A "sign" is a mute invitation to those who may pass a man's place of business; a "circular" will only reach the one to whom it is personally addressed; but an "advertisement" in a well-conducted and widely-circulated paper (like the AMERICAN BEE JOURNAL) has an influence "far and wide;" it finds customers and almost compels them to consider the claims of the wide-awake advertiser. To yearly advertisers the AMERICAN BEE JOURNAL offers special inducements. This is just the time to make a contract for the year 1887.

◆

We Keep this Notice standing all the year round: "Always give the name of the Postoffice to which your paper is addressed. Your name cannot be found on our list unless this is done," and yet many ask us to change their address without even mentioning to what Postoffice it has heretofore been sent. It often costs us more to find their old address than they pay for the BEE JOURNAL for a year; as we may have to examine our subscription lists in every State, Province and Territory in North America. Please be more careful in the future, and never omit your name, Postoffice, county and State.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Market is well supplied with all the grades, and the demand is light. Prices are nominal at 11@12c. for white in 1-lb. sections. Fancy white in scant pound sections, 13c. Very little extracted is being sold, and prices range from 4@7c.

BEESWAX.—22c.

R. A. BURNETT,
Dec. 8. 161 South Water St.

NEW YORK.

HONEY.—In consequence of a large stock of comb honey on this market, fancy prices cannot be maintained. Fancy white honey in paper boxes, or glassed, are in better favor here than the unglassed honey, hence the difference in the price. We quote present prices as follows: Fancy white in 1-lb. paper boxes, or glassed, 13c.; same unglassed, 12c., and in 2-lb. glassed sections, 10@11c.; off grades 1 to 2 cts. per lb less. Calif. comb, 8@10c.; fancy buckwheat 1-lbs., 8½@9c., and 2-lbs. 7½@8c. Extracted white clover, none in the market. Calif. ext'd, 60-lb. cans, 5@6c.; buckwheat, in kegs and barrels, 4@5c.

BEESWAX.—21@23c.

McCAUL & HILDRETH BROS.,
Dec. 7. 34 Hudson St.

BOSTON.

HONEY.—The demand has improved. We are selling one-pound packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.

Jan. 1. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—The market is a trifle more active. Best white comb honey in 1-lb. sections, 11@12½c. Buckwheat, 10c. Extracted, 7@9c.

BEESWAX.—23c.

Dec. 13. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—There is a quiet tone prevailing, but the demand is fair for choice comb and extracted honey, in small packages. Manufacturers buy very sparingly. The supply is large and prices are downward. We quote prices for extracted honey, 3@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for choice yellow.

Dec.21. C.F.MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—The market is not very active and prices a little lower. Choice 1-lb. sections of best white sell at 13@14c.; second grade 1-lbs., 10@12c.; choice white 2-lbs., 11@12c. Extracted, slow at 6c.

BEESWAX.—Scarce at 25c.

Nov. 17. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—The demand for honey is only moderate and the supply ample, of very fine quality and in extra good order. We quote choice 1-lb. sections of white at 12@13c.; 2-lbs., 11@12c.; dark not wanted. Extracted, white, in barrels, half-barrels and in kegs, 6@6½c.; in tin packages, 6½@7c.; dark, in barrels and ½-barrels, 5@6c.

BEESWAX.—Nominal at 25c.

Dec. 13. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—The market has been rather duller the last week, but prices are well maintained, particularly for choice white extracted and choice white comb honey, as both kinds are not freely offered. We quote: 3½@4¼c. for extracted, and 9@12c. for comb; with easier sales for the best grades, than for the darker honey, as none seem to be able to use the dark just now.

BEESWAX.—Dull at 19@22c.

Dec. 11. SCHACHT & LEMCKE, 122-124 Davis St.

HONEY.—Trade is quiet. Extra white comb 11c; amber, 7½@10c. Extracted, white, 4@4¼c.; amber, 3½@3¾c.

BEESWAX.—20@23c.

Oct. 18. O. B. SMITH & CO., 423 Front Street.

KANSAS CITY.

HONEY.—Demand is good for all grades, and receipts have been very large of comb and extracted. Home bee-men have kept out of the market until this month; having glassed every lb. section on both sides they are reducing prices, selling 60 lbs. of glass with 160 lbs. of honey, making our market lower. There crop is about 70,000 pounds. We quote: White clover 1-lbs., 12@13c.; 2-lbs., 11c: ½-lbs., 13@14c.; dark 1-lbs., 10c.; 2-lbs., 8@9c.—California 2-lbs., 9@11c. Extracted white clover, 6c.; dark, 4@5c.; white sage Calif., 5½c.; amber, 5c.

BEESWAX.—22c.

Nov.20. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3¼@4c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5.; in cans 5@8c. Market dull.

BEESWAX.—Firm at 20½c. for prime.

Dec. 20. D. G. TUTT & CO., Commercial St.

Advertisements.

BEES FOR SALE.

50 COLONIES of BEES, in two-story Langstroth Hives, for sale CHEAP. This is a rare opportunity. February is the time for moving them.

For further particulars, address,

GEO. B. PETERS,
(Senate Chamber), LITTLE ROCK, ARK.
1A2t

THE CHAPMAN
HONEY PLANT.

Having expended thousands of dollars in bringing before the people one of the most wonderful honey-producing plants known in the United States, or even in the world, and testing it honestly and fairly, wish to say through your valuable JOURNAL that the seed contains so much oil that nothing but fresh seed will grow, or by thrashing, if the seed is bruised or broken, it will not grow for this reason. And by the advice of many prominent bee-keepers, I have decided to sell the limited amount of seed I have raised this season at the following prices, and will send to those who have already ordered the amount of seed due them at this low price: One-half ounce 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set. Write all orders plainly, and give your post-office in full.

H. CHAPMAN,
52A2t Versailles, Cattaraugus Co., N. Y.

P. S.—See official report of the Committee in next issue of AMERICAN BEE JOURNAL.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

IMPORTED Italian Queen in full Colony, only $8.00 —O. N. BALDWIN, Clarksville, Mo.
4A1y

Bee-Keepers' Supplies
of all kinds kept in stock,
at low rates.
THE QUINBY SMOKER
a specialty.
Send for Illustrated Price-List.
W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

1887. ITALIAN QUEENS. 1887.

6 WARRANTED QUEENS FOR $5. If you want Nice, Bright Queens, the progeny of which are good workers, and could be seen working on Red Clover at any time within the last two years, send for my Circular.

J. T. WILSON,
1Ctf NICHOLASVILLE, KY.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

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1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?" August Beyer, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

1A6t 7D6t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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Supplies
WHOLESALE & RETAIL
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TOLEDO
OHIO.

All orders filled the day they are received, except for bees and queens. 1D6t

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The British Bee Journal is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

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HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5.

Sold by Druggists, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
45A12t

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

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923 & 925 West Madison Street, Chicago, Ill

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

PRIZES!

ARE offered by the Magazine, to the Subscribers who obtain the largest amount of Comb Honey during 1887. Write for particulars. **THE BEE-KEEPERS' MAGAZINE, 25 cents per Year.**
1Atf **BARRYTOWN, N. Y.**
(Mention this Journal.)

BEESWAX.

We pay **20c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

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IS a 16-page Monthly, at 25 cts. per Year; clubbed with the American Bee Journal for $1.20. Sample copy sent free, with our Illustrated Catalogue of Supplies.

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J. B. MASON & SONS.
1A1t MECHANICS FALLS, MAINE.

Established 1857.
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Satisfaction Guaranteed
DESIGNERS AND
ENGRAVERS ON WOOD
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CLARK & MONROE STS.
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DEALERS IN
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Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

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NON-SWARMING BEE-HIVES.

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51A6t

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A CRISP and charming Monthly. Well edited, clearly printed, and pleasingly illustrated. **Prize Contributions.** Send stamp for sample, or better still send fifty cents and get the paper for one year. You will be amply repaid. Address,

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Dunham and Root Foundation a specialty.
Italian Queens and Bees from March to November.
☞ Send for my Illustrated Catalogue.
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BEES OR HONEY

We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture**, with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes**, all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly*, to

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Breeder of High-Class Poultry.

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Read what J. I. Parent, of Charlton, N. Y., says—"We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
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WANTED.—Some one with or without experience, but with some ready cash, to join me in rearing Bees and producing Honey, and to take a half interest in 100, 150, 200, or 250 colonies of bees. My honey crop the past season was 19,000 pounds. Correspondence desired.
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50C2t ST. CHARLES, ILLS.

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Large Garden Guide Free to all. You should have it. Best varieties, all tested, at low prices.
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SECTIONS.

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WHILE attending the North American Bee-Keepers' Convention at Indianapolis, we learned there was a rumor afloat that the Patent on the ONE-PIECE SECTION had been set aside—circulated by unprincipled parties, to mislead bee-keepers. We would say in regard to this, that such is not the case. It is now before the U. S. Supreme Court, at Washington, and will probably be decided before a great while, when we will notify all through the Bee Journal. Until then pay no attention to rumors.

Before ordering write us for prices. We will furnish you Sections as cheap as the cheapest. Let us hear from you before you order. Address,

J. FORNCROOK & CO.,
5Atf Watertown, Wis., Nov. 1, 1886.

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SEED from *Echinops Sphærocephalus*—commonly called "Chapman Honey-Plant." Price per ½ ounce, 40 cents; per ounce, 80 cents; 2 ounces, $1.50; 4 ounces, $2; 8 ounces, $3. Warranted genuine.

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HAND-BOOK OF HEALTH,

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How much to Wear
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Prices are as follows:

To hold 1 pound of honey, per dozen, ...	$1.60
" 2 pounds " "	2.00
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INVERTIBLE FRAMES,

Invertible Surplus Honey Cases, Entrance Feeders, Top and Bottom Feeders, Hive-Lifting Device, Honey Extractors, Wax Extractors, Comb Foundation, etc.

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High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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Alley's Drone and Queen Trap.

Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

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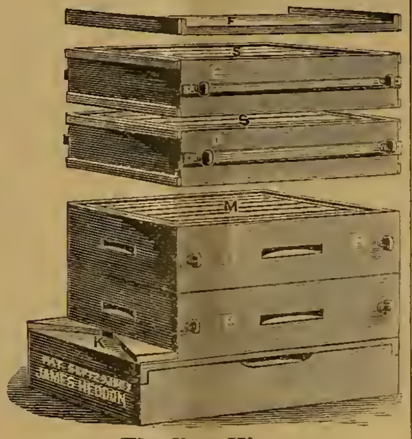

The New Hive.

I have many more testimonials like the following, from Leading Bee-Keepers of this country. See 1887 Catalogue, to know what Prof. Cook, W. Z. Hutchinson, F. P. Stiles, T. L. VonDorn, F. Boomhower, and Doctors Tinker, Mason, Miller and others think, after many of them have thoroughly tested the New Hive:

Your hive is novel, and I propose to try it.
E. J. COOK, (Bro. to Prof. Cook.)
Owosso, Mich., Feb. 11, 1886.

Please send me descriptive circular of your new hive; the thing seems a novelty to me, and I am anxious to understand it. W. S. CASSON.
Cynthiana, Ky., Jan. 22, 1886.

I have been reading your book and I regard it as a most valuable acquisition to our bee-literature. Your new hive is a wide departure from the old order of things, and I can see much to commend it, in the hands of a master. J. W. PORTER.
Charlottesville, Va., July 2, 1886.

I note with pleasure your improved reversible and interchangeable hive. I consider it THE hive, though my experience in the bee-business has been limited, yet I see in this hive a great revolution in handling bees, making it a pleasure to handle them. S. J. JACKSON,
Southern Agt. of the Southern Despatch fast ft. line.
Atlanta, Ga., Aug. 9, 1886.

I have in use 20 hives embracing your late inventions, and to say that I like them would be stating it mildly. Your principles, I think, have come to stay. I find there exists considerable prejudice against your new hive, it being so much different from the hives in general use here, and I predict that because it is so different, requiring a system of management peculiar to itself, it will not meet with such general approbation as it deserves. D. S. HALL.
South Cabot, Vt., Oct. 4, 1886.

When I first saw your new hive, in your home apiary, a year and a half ago, its construction and system of management being so different from any other hive, I was not favorably impressed with it; but in canvassing the subject in my own mind afterward, I thought of the excellent results that had attended the use of your other inventions, and it occurred to me that possibly this might afford me equal satisfaction. The more I studied the hive, the plainer its advantages appeared to me, and I determined to give it a comprehensive trial. After the past season's use of nearly 100 of them, I am prepared to endorse more than you claim for it. In my judgment, it will revolutionize our business, and he who would produce honey at a profit, will not be slow to adopt this hive as soon as he realizes how much it lessens the cost of production. While my own financial interests would be enhanced, were its sale restricted, I am not selfish enough to desire to keep my brother bee-keepers from enjoying so good a thing. Wishing you the ample success that your labors in the cause of bee-culture justly merit, I am cordially and fraternally yours, DWIGHT FURNESS.
Furnessville, Ind., Oct. 10, 1886.

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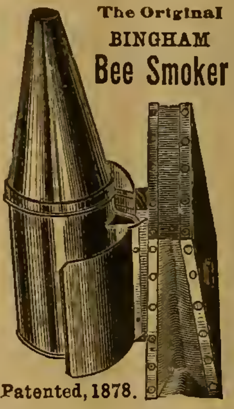

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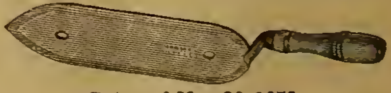
ADDISON, Vt.—Have one of your smokers good yet—used 6 years. E. J. SMITH.

ELM GROVE, Mass.—Have one I have used six seasons—good yet. F. M. TAINTOR.

BORODINO, N. Y., Aug. 15, 1882.—All summer long it has been "which and t'other" with me and the Cyprian colony of bees I have—but at last I am boss—Bingham's Conqueror Smoker did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham. G. M. DOOLITTLE.

Bingham & Hetherington Uncapping Knife.



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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Jan. 12, 1887. No. 2.

All New Subscriptions will begin with the year, and until further notice we will send the back numbers from January 1, unless otherwise ordered.

A meeting of the Maine Bee Keepers' Association will be held at Mechanics Falls, Maine, on Jan. 25—27, 1887, and it promises to be one of exceptional interest and importance, on account of the recent movement for a consolidation of the different bee-associations of the State, in one society, which is to be incorporated by the Legislature.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

How to Secure a Copy Right on a Book is a query from a correspondent. He says he is writing one, and wants to publish it on his "own hook." We are free to say that publishing on one's own hook is quite risky business; but that is none of our business, and we will answer the question. Get the title page printed, and send two copies of it with one dollar to the Librarian of Congress, Hon. A. R. Spofford, Washington, D. C., asking him to send you a copy right. The dollar is to pay for registration and clerical fees.

As War in Europe may be announced any day by cable, most people are interested to know something about the great states which will first be involved. "Francis Joseph I., and the Austria-Hungary Empire" by Geo. M. Towle, gives, in *Frank Leslie's Popular Monthly* for January, a clear and well-written picture of one Power. "When Greek Meets Turk," by Oscanyan, tells the story of another. The whole January number of this periodical, with its attractive reading and charming pictures, is a prize for young and old.

The California Bee-Suit.—We have received a letter from Mr. Bohn, who was defendant in a suit for trespass said to be committed by his bees on a neighbor's vineyard, stating that the trouble was all over now. Mr. Bohn, assisted by the National Bee-Keepers Union, made a very vigorous fight, and the united resistence was too much for the fruit-growers. They now admit, says Mr. Bohn, that the bees have not been troublesome during the past year. This shows the value of united action, and the moral weight of the "backing" Mr. B. had in the National Bee-Keepers' Union! Of course all are well aware that the Union should have thirty thousand members instead of three hundred! On this point we commend to every bee-keeper the following from one of our correspondents:

> The moral effect of numerical strength is great, and many battles have been won by sheer force of numbers, and without striking a blow. So with us; if we can show an unbroken front, composed of a majority of the bee-keepers of the country, and cause it to be understood that each and every one of us are pledged to pull together in unison and harmony for defense of our rights, we shall bear down all opposition by this moral weight alone.

The very fact that so few are enrolled as members is a disgrace to those who are engaged in the pursuit of bee-keeping. Let all arouse from sleep, join the Union, and thus make it a "sure defense."

The Uses of Honey are many and ever-increasing; and as people become more and more acquainted with the various purposes to which the product of the labors of the honey-bees can be put, the greater will be the demand for it. But perhaps one of the newest ways in which honey is employed, is recorded in an account given in a scientific periodical in Italy, wherein is described an Italian method of preserving bodies in a soft an flexible condition for several months, and by that means enabling them to be dissected without the least danger to the preparator or the anatomist. To this end, the bodies are placed in some sort of receptacle, and then covered with a layer of the thickest and purest honey that can be obtained. The using of honey for this purpose may not be the means of increasing its demand, but it serves to illustrate the preserving power which pure honey possesses, and also may be a new idea to many.

Catalogues for 1887.—Those on our desk are from

James Heddon, Dowagiac, Mich.—36 pages.
E. T. Flanagan, Belleville, Ills.—8 pages.
G. W. Stanley, Wyoming, N. Y.—12 pages.
Victor W. Clough, Geneseo, Ills.—8 pages.

By Using the Binder made expressly for this Bee Journal, all can have them bound and ready for reference and examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

One Dollar invested for the weekly visits of the American Bee Journal for 1887, will richly repay every apiarist in America.

One of the Many Topics to be discussed at the convention at Andover, Ohio, on Jan. 19, is the following which we notice on quite a lengthy programme: "Can the bee-keepers of the United States form a combination and control the price of honey?" This is one of the *living issues* of to-day, and is receiving a very thorough and exhaustive examination.

A correspondent suggests that a rousing convention be held in Chicago early in May, "especially devoted to matters *outside* of honey-production," taking up the vital subjects heretofore much neglected, such as "cost of production, and the proper selling price for honey, and how to maintain it," etc., etc.

If it is thought best to call such a convention, it ought to represent every portion of of the United States, either by the personal attendance of representative bee-keepers, or their written views on the subjects to come before the meeting. It should also be stenographically reported and published, and made an "authority" for American apiarists. The object of the present preliminary discussion, is to ascertain the views of apiarists all over the continent of North America, and decide whether it is desired to hold such a convention.

The American Bee Journal will not yet take any side in the controversy, but will await the decision of the mature judgment of the solons of apiculture AFTER a thorough discussion of the question of desirability and practicability.

Alabama now has an organization of apiarists, known as the "The Alabama Bee-Keepers' Association. It was organized last November, and S. G. Wood, of Birmingham, was elected President; Geo. H. Hoyle, of Mobile, Vice-President; and J. M. Jenkins, of Wetumpka, Secretary and Treasurer. The object of the association was declared to be the advancement of the bee-keeping interests of Alabama.

The Secretary desires to have the following notice made public, and we therefore give it a prominent place in this paper:

> The association will meet annually, and its next meeting will be at the time and place at which the Alabama State Fair is held, or the call of the President. Any bee-keeper living in Alabama may become a member of the association by forwarding his or her address and 25 cents to the Secretary and Treasurer. The fellowship and co-operation of Alabama bee-keepers is earnestly desired. The Secretary will cheerfully correspond wilth bee-keepers desiring further information concerning the association, and will mail a copy of the constitution and by-laws to all applicants as soon as printed.

We Keep this Notice standing all the year round: "Always give the name of the Postoffice to which your paper is addressed. Your name cannot be found on our list unless this is done," and yet many ask us to change their address without even mentioning to what Postoffice it has heretofore been sent. It often costs us more to find their old address than they pay for the Bee Journal for a year; as we may have to examine our subscription lists in every State, Province and Territory in North America. Please be more careful in the future, and never omit your name, Postoffice, county and State.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Double Hives for Wintering.

Query, No. 359.—Is it an advantage to winter two or more colonies in one hive? Why are not double hives more generally used? What is their worst disadvantage?—Glenville, Ky.

I can see no practical advantage in this system.—H. D. CUTTING.

I have never practiced such wintering. Some like it; others do not.—G. M. DOOLITTLE.

I do not think it is. The worst disadvantage is that it is often desirable to move one of the colonies to a new location.—G. L. TINKER.

Yes, there is an advantage, as it economizes the packing material, also the labor of packing, when bees are protected upon the summer stands. Their worst disadvantage—and it is a big one—is that the hives hinder in the manipulation of the bees in the working season.—W. Z. HUTCHINSON.

In the case of small colonies it is. Double hives are too inconvenient to manipulate. One colony might require the hive to be manipulated that would very seriously interfere with the other colony.—J. P. H. BROWN.

Double or triple hives have no advantage that we can see. We tried them. Their worst feature is that you cannot disturb one colony without disturbing all that are under the same roof.—DADANT & SON.

I do not think there is any advantage. The disadvantages are in the bother and trouble of changing back and forth, which are enough to keep me from that method.—J. E. POND.

It is an advantage to winter 2 colonies in one hive, but it is more convenient to move two single hives close together than it is to manage so cumbersome a hive as a double hive would be. I have had as many as 6 colonies in a hive. The worst disadvantage was the loss of queens. — C. W. DAYTON.

Yes. Double hives are heavy to handle, and I would not want any thing but a single hive at the time of putting on supers. The use of double hives, however, as laid down in "A Year Among the Bees," I consider of very great advantage.—C. C. MILLER.

They have been used over and over, and discarded. They are not convenient for summer. It is better to put several hives together in the winter. Many do this, and winter their bees very successfully.—A. J. COOK.

In theory it looks as though two or more colonies divided off in the same hive would be to the mutual advantage of the several colonies lodging so closely together; but in practice the plan has not been worth the extra trouble to me. I suppose that the chief objection to a "double hive" is that they are inferior to the single hive for honey producing. I am more and more convinced that the less complication there is about a hive the better it will work. The hive does not gather honey; it is the bees that do the work. Hence the hive that is the most simple and handy to work with, is the best. I am sure that time will prove this to be true.—G. W. DEMAREE.

If one can think of no better way to conserve the heat of a cluster of bees, than to place another cluster by its side, he might do so with some little advantage in that direction. About all the disadvantage there is in double hives, is that they will make the cost of honey production enough more than what it will be by the use of readily movable hives, that their user will be left far behind in the race. It may take time, but I trust all will see it by and by.—JAMES HEDDON.

While "double hives" may be of some advantage in wintering weak colonies, they are too costly and inconvenient for general use. — THE EDITOR.

Removing Propolis Stains.

Query, No. 360.—What is the best way to remove from the fingers propolis and the stain it leaves?—Prof., N. J.

The cheapest and readiest material is kerosene oil.—J. P. H. BROWN.

Good soap and soft water has always answered my purpose.—G. L. TINKER.

I should like an answer to that question myself. I generally let it wear off.—G. M. DOOLITTLE.

Use a little alcohol; it will remove all propolis instantly.—H. D. CUTTING.

Use home-made soap and wash thoroughly in very warm water.—C. W. DAYTON.

I have used naptha and alcohol, and have also found that rubbing with a piece of pumice-stone would remove the stains.—J. E. POND.

Use a soap that contains some "gritty" material that will scratch it off. I am not certain, but I think alcohol will dissolve the propolis.—W. Z. HUTCHINSON.

Alcohol, linseed oil, turpentine, or ammonia. Alcohol or ammonia are preferred, because they leave no unpleasant smell behind.—DADANT & SON.

The best thing I have tried is soap and warm water, and the friction of a soft corn-cob. The fumes of sulphur will remove vegetable stains. But the stain left by propolis soon disappears without any remedy, if you will not worry about it.—G. W. DEMAREE.

Alcohol takes off propolis very readily; so will spirits of turpentine. It is wonderful to see how a little alcohol will remove the propolis.—A. J. COOK.

Pour a little ammonia on your fingers. You can also take it off by rubbing grease on your fingers and washing in very hot water.—C. C. MILLER.

We have used alcohol for removing the propolis from the fingers, and have always found it very effective.—THE EDITOR.

Rearing Queens on their Heads.

Query, No. 361.—Lately I saw this sentence in the BEE JOURNAL: "Queens cannot be reared standing on their heads." I want to know if this is so, and, if it is, how often should a hive be inverted to accomplish this object during the swarming season?—C. E. B., Ohio.

It is generally believed that queens cannot be reared on their heads. How often to reverse will depend upon circumstances.—H. D. CUTTING.

Queens *are* "reared" with their heads toward the apex of the cell, which usually points "downward." While thus seemingly "standing on their heads," the latter is protected and supported by a soft, delicate, and most elaborately woven cushion of the finest silk.—J. P. H. BROWN.

"Standing on their heads" is the natural position for queens to be reared. The brood-combs should be inverted every 5 or 7 days. Though I have successfully run an apiary through one season on that plan, I could not determine the exact time.—C. W. DAYTON.

All my experience goes to prove that 999 out of every 1,000 queens are reared "standing on their heads." The other one is in a horizontal position. If stood the other way, heads up, perhaps they might not hatch, but I have little or no experience along that line.—G. M. DOOLITTLE.

I am not so anxious to prevent natural swarming as to practice inversion for the purpose, even if it is effectual. I believe it to be an unreliable preventive, although the bees complete no cells. Swarms often issue without having started queen-cells.—G. L. TINKER.

I think I have seen one whom I consider good authority state that inverting once a week will prevent swarming, but if it be true that bees will sometimes swarm without starting queen-cells at all, how can inverting prevent such bees from swarming? I have, however, had no experience in the matter.—C. C. MILLER.

We find that turning causes the cells to be destroyed, and seems to cause bees to give up swarming. The frequency would depend upon circumstances. I should have little fear of swarming if hives were inverted every week, though we found one inversion enough in every case. The bees gave it up, and went pell-mell into the sections.—A. J. COOK.

In opening queen-cells I have never found the queens standing in any other position than "on their heads." If queen-cells were always built in such a position that inversion would destroy the inmates, no queens could be reared if the combs were inverted about once a week. *If* inverson prevents swarming, I think it is rather by awaking new determinations among the bees, than by killing embryo queens.—W. Z. HUTCHINSON.

Inverting is impracticable, in my opinion, and the trouble stated in the query is the least connected with the method. If an intimation was given as to whether it is desired to rear queens or not, the question might be answered by some one who had made a test in that particular direction. I should say, do not invert at all.—J. E. POND.

I suppose the person who wrote that "queens cannot be reared standing on their heads," was aiming to be witty, but he spoke the truth notwithstanding. A majority of queens are reared with their heads down, but not "standing on their heads." Reversing the hive will not destroy young queens unless they are handled so roughly that the young queens are dislodged from their natural position in the cells while in the larval or chrysalis state. Reversing cannot be depended upon to prevent swarming. I mean that the plan is not practicable, and perhaps no other plan is. We must prevent *increase*, not swarming. —G. W. DEMAREE.

While I do not claim to have made special and thorough tests of inverting, as applied to the destruction of queen pupa or nymph, from what I have observed while largely experimenting with inverting for other purposes, I have concluded that it will not result in a practical method of controlling swarming. — JAMES HEDDON.

Queens are *not* reared "*standing* on their heads." Though the head points downwards, their bodies are *upheld* by fine silken cords, and protected by elaborately-constructed net-work. — THE EDITOR.

Premium Worth Having.—The New York *World* and the AMERICAN BEE JOURNAL (both weekly) will be sent for one year to any address in North America for $2.00. And in addition PRESENT to every such CLUB SUBSCRIBER a "History of the United States," containing 320 pages and 22 fine engravings, bound in leather and gilt.

This "History" will be sent FREE by express at the subscriber's expense; or will be mailed for 10 cents extra to any place in the United States or Canada.

It is arranged chronologically by years, from 1492 to 1885. Every event is narrated in the order of its date. These are not confined, as in other works, to political matters, but embrace every branch of human action.

This premium is worth the whole of the money sent for both periodicals, and should induce thousands to subscribe, and thus get two unrivalled weeklies for nothing.

Correspondence.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⟜ northwest: ⊸ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Apicultural Legislation.

J. F. LATHAM.

When viewed from a strictly practical stand-point, it seems that the pursuit of bee-keeping, as an industrial vocation, presents but very limited requirements that demand special legislation; surely not to the extent called for by other agragrian pursuits. While foraging, the bee is beyond the control of its master—a free rover, free in its flight, from artificially prescribed limits. The food of the bee, when derived from the floral adornments of Nature, is but a spontaneous effusion, the bounty of the One Cause, a wonder-working demonstration of occult power, over which the "lords of creation" can exercise no control, and who ought to exercise sufficient rationality to deter a desire to control.

Within the bounds of the apiary the bee is a possession of the proprietor, and directly or indirectly under his control. When needed, the bee-keeper should possess sufficient endowments to constitute "legislative" function commensurate to the surroundings—the direct exigencies of the bee-yard. If an apiary be located sufficiently near the property or place of legitimate employment of another as to actually endanger the lives or well-being of the occupants, it seems that a remedy exists in the application of "common law," by which such irregularities may be adjusted, as ofen called for in other pursuits. Mr. A possesses no legal or moral right to keep bees on his own land in the shadow of the fence separating them from Mr. B's barn-yard, which is in constant use for yarding his domestic animals; or sufficiently near his dwelling-house and its surroundings to be a constant annoyance to the occupants, even if he (A) is entitled to the nominal credit of "priority of location," as referring to homestead rights. Neither has B the right to establish a stock-yard by the side of A's apiary. The conveniences of public travel are entitled to a like consideration. No one is obliged to turn from the highway, while pursuing a legitimate calling, to avoid a nuisance existing on private property, whether such a nuisance be constituted in a colony of bees, a mad bull, or any other endangering obstacle.

As to the feasibility of legislation, granting and securing to a single apiarist exclusive territorial rights beyond his private possessions, but little need be said or written. Special law-making is at best but too often the result of preconceived aggressions; an attempt to reduce to servility the surplus energy of vigorous industry, for the maintenance of indolence, imbecility, and the gratification of a depraved thirst for notoriety. "The earth, and the fullness thereof" are not, and can never be made the specific possessions of any single individual, class or association of individuals. The laborer is worthy of the meat which the Eternal edict imperatively demands that he shall eat by the sweat of his brow, minus restrictions by Divine legislation. Feudal attributes have not as yet become requisites of modern bee-keeping. Every yeoman has a right to keep bees on his possessions, if he chooses so to do; certainly not beyond.

In a radical aspect, it seems that if an apiarist possessing but an acre of land could be legislated into the control of all the bee-pasturage within the circumscribed limits of the flight of his bees, the tenor of the same legislation would give him control of all the vegetation that might produce nectar within the same limits; even depriving a neighbor, a mile distant, the right to cut basswood lumber, or destroy the nectar-producing shrubs and weeds that were overgrowing his grazing land. A person not characteristically qualified to make a success of bee-keeping, as a matter of course must succumb to the "inevitable," leaving the blank of his departure to be filled by the fittest survival. From the above fact it is quite certain that the genuine apiarist will never lack room in which to exercise his talents; and that, too, without the need of a "special legislation."

Cumberland, ♀ Me.

For the American Bee Journal.

The Honey-Producers' Association.

EUGENE SECOR.

On page 774 of the AMERICAN BEE JOURNAL for 1886, Mr. M. M. Baldridge discusses the above subject in connection with several others along the same line. While an association of that character might do some good, it would not, in my judgment, be a panacea for all our ills. It seems to me that the commission men come in for more than their share of criticism. I do not believe them all to be angels, by any means, but perhaps on a closer acquaintance we might be able to discover where wings ought to be. They do not fix the price of honey—or if they do, it is the producer's fault in not confining them to a selling price. If I send a consignment of honey to a commission house, and write them to hold it for a certain price, or await further orders, I think they would follow instructions if they were a reputable firm—and none others should be trusted. If they did not, I should probably not send them any more.

The trouble is, one of my neighbors, who is not a millionnaire, and who might want to use the money for his crop, sends the same house his honey also, and writes them that he wants it worked off as soon as possible, even if they have to shade the price a little, as he has a note at the bank which must be met at a certain date. The commission men will probably sell this man's honey first. The grocer who bought it can undersell the one who would buy mine. Not to be outdone by his neighbor grocer he bears the market in order to get his as cheaply as the other man did. And so it goes. The trouble is in the producers who do not fix their own prices. Mr. Baldridge says the same thing. Now what are we going to do about it? It seems just as impossible to fix the price of honey in the world's markets as it is to fix the price of wheat.

I live in the "wheat belt." I know there have been more bushels of wheat sold during the past year at less than the cost of production than above it. The farmers know it too, but what folly it is to talk of getting these farmers to combine and hold their wheat for paying prices! They must either sell it or the sheriff will. Even if they *could* hold it, they lack organization and unity of purpose. And you might preach the benefits of a producers' association to them as long as Noah preached to the antediluvians, and few would be saved but the preacher. They would not come to his meeting. They would not read his tracts. So with honey-producers. One out of a hundred might identify himself with the organization, but where are the ninety and nine? Slumbering in the security of blissful ignorance. Seventy-five of the number will never hear of it, because they do not read the bee-papers. They will go on dickering their honey off to Tom, Dick and Harry, for what they can get, until it becomes so cheap that they will take no interest whatever in the business, and let their bees die. The law of the survival of the fittest will in time fix things.

Butter is a staple article. It has a market value governed by supply and demand, the same as wheat; yet thousands of pounds of what is called butter are annually sold at less than 10 cents per pound—below the cost of production. Butter is also a luxury. Wealthy people are willing to pay a fancy price for a really fine article. Some dairymen know how to "get there," and supply this demand. They make money while the other fellows eke out an existence competing with "oleo." Honey is *not* a staple. The only way to sell it is to reach the palate. We have very little trouble selling our best grades of honey at a price above cost of production.

I do not see any other way out of these low prices than to *produce the best at the lowest possible cost*, and await the result. If honey is cheaper than it used to be, we produce it more cheaply. The best appliances and the best methods will win. Let us "grin and bear it." They who *stick* are the one's to succeed. Remember Lot's wife.

Now as to the reports of honey in the bee-papers, I do not see what harm that does. Almost every other thing is quoted in the produce papers. Are hogs any cheaper because the daily papers quote them?

Forest City, ♁ Iowa.

For the American Bee Journal.

Apicultural Progress.

JAMES HEDDON.

Whoever looks back over the great progress of apiculture during the last two decades, will not fail to discover that inseparably connected with this progress is the one of mechanical invention. Perhaps I might well have said that this invention constitutes the major portion of that progress. Yes, surely, a look backward verifies the statement. Where would we be to-day had the Langstroth hive, honey-extractor, comb foundation machine, bellows smoker, under beveled honey-knife, and scores of lesser manufactures never been devised?

When looking outside of our art, how readily we discover that inventions have enabled us to live better and have more comforts of life than the kings and queens of a century ago. It is no wonder that civilized nations have devised ways and means to stimulate these inventions by way of patent offices. There are, however, serious objections to these offices, and the laws and rulings connected with them. They are expensive (sometimes vastly so), and they beget falsehood and perjury.

Two or three years ago I wrote an article in *Gleanings* discussing the feasibility of establishing among bee-keepers an honorary patent system. Some one smiled and said: "Oh! pshaw, no apicultural inventor could realize protection through any such arrangement. We have too many dishonest men in our ranks." I am aware that there are dishonest bee-keepers, but they are not in the majority by any means, and among the more intelligent who lead the van, I am glad to say they are largely in the minority. Before I wrote that article for *Gleanings*, I looked the ground over carefully—I have been looking it over ever since, and to day I feel positive that if the honorable men of our class—men who readily see or can be shown the right, will (and I believe they will) use their influence for right and justice, we can inaugurate a protective system not only cheaper, but much better, and freer from fraud than the patent system which is now trying to protect the world's inventors in their right to the results of their own labor. The patent office now stands in the way of moral protection. While we all know that laws governing conduct are absolutely necessary, the student of human nature does not fail to discover that these necessary laws have a tendency to remove from the human heart a part of the deep convictions of conscience.

Apropos to the above I have had to smile at the ignorance or frown on the thievishness of a few who have sent letters asking a question that cannot be answered this side of an expensive suit in the United States courts: "What will your patent-claims hold?" The best answer to such a question—the most appropriate answer—may be found in the following illustration:

When this country was new, and nearly all the land belonged to the government, the settlers very few, and the timber free to any taker, a resident named Joseph Industry conceived the idea of chopping a large quantity of wood, which he thought would be needed by a railroad, which he felt sure must come that way in a few years. He began the work of cording up the wood as fast as spare time from the farm would admit, and after a few years had a pile 4 feet high and 200 rods long. By and by he noticed parties taking wood from different places in the pile. Several times he asked those who had taken wood if they did not know that this wood was the result of his labor, and rightfully belonged to him; and they said "y-e-s," but it was "awful good" wood, much better than their own, and they did not think he would care if they took a *little;* that they could have chopped down the same trees had they chosen to do so.

Finally he shouldered his rifle, making up his mind to protect his wood at all hazards. One day while sitting on the pile, he saw a neighbor, Dave Indolence, carrying wood away, and called to him to stop. Dave answered by asking him how far his rifle would carry up. Joseph replied that its range was about 80 rods; when Dave said, "If that is your 'claims' I'll take the wood and you can fire away, for its a hundred rods down here; you see you didn't fix up the results of your labor in the right shape."

I find that it is a too common opinion that it is only by virtue of law that property in invention, exists. Certainly we know that *legal* property—property which the law will protect—exists in invention only by virtue of that law; but morally, property in invention is a law in nature, and the *right* of property in invention will be recognized by every honest man the moment he realizes that fact.

Property never was nor never will be produced by law; it must be the product of labor. It must be earned. There are many men who legally own a large amount of wealth who never earned it, but surely some one did. If property could be created by law, our government might support all its people in that way; aye, legislate them all rich.

If property in invention did not exist in the nature of things, a statute to protect such property by law would amount to legal robbery.

In the article for *Gleanings*, which I have referred to, I proposed for consideration something like this: In the main we would follow the rulings of the patent office. Regarding the question of prior invention, we would not spend a minute nor a cent discussing it. We would give the right to the prior *publisher* for reasons of justice, practicability and morality. 1. An inventor does nothing for the public until he publishes his invention; consequently they owe him nothing before that time. 2. It would do away with all falsehood and perjury, claiming the invention to be old. If it could not be shown in publications, and that it had not been abandoned, the claim would hold good; and if it could, it would not cost a dollar to show it, and invalidate that claim.

There are other equally superior rulings that we might have, and as our class is so small, and our publications (which form the popular sentiment) so few in number, I believe such an honorary inventor's-rights-system, and also wholesome regulations regarding the marketing of our honey, and receiving what it is worth, "priority of location," etc., can all be fixed successfully and greatly to our advantage. I am in favor of responding to Mr. Baldridge's call, and desire to hear the honest expressions of those who are more interested in justice and the welfare of our class, than in simple controversy.

Dowagiac, ♀ Mich.

For the American Bee Journal.

The Marketing of Honey.

N. J. SHEPHERD.

In selling almost any kind of farm products there is considerable difference in the price received, and in a great majority of cases a considerable proportion of this is due to the way or condition in which products are sent to market. Honey is no exception, and in many cases the cause of the low prices received is largely due to the condition in which it is sent to market.

Like all other products, it must be made neat and attractive in order to sell to the best advantage. Boxes or frames made so that the comb will present a clean, neat appearance, aids materially in securing a good price. To send honey to market, as is often done, taken out of the frames or boxes and dumped into a jar or bucket, cut or broken into convenient pieces, and allowing a goodly portion of the best to run out and settle at the bottom; then to sell the comb to one purchaser and the liquid honey to another, and that not clear of small bits of comb, is certain to give dissatisfaction to the purchasers, and a less quantity will supply the demand. Taken generally, if properly managed, the home market is the best. Of course this may be easily overstocked where there are quite a number engaged in the business in the same neighborhood, and of course another market must be found.

Many new purchasers are either made permanent or lost entirely by the first purchase, and if we expect to build up a paying business every reasonable effort must be made to please our customers, so that they may be made good consumers. The more consumers we can make the larger the demand, and the readier the sale the better prices we can secure. When it can be avoided, the comb should not be broken, unless it is cut up and put into glasses so that an equal amount of liquid will be sold with the comb; or the comb sold entire. If boxes are used, have them neatly made of planed lumber. Shingles are often rough, and if covered in some places with old comb, it hardly presents an attractive appearance sufficient to induce rapid sales. We are all interested in this, as it aids in making sales.

Eldon,⊙ Mo.

For the American Bee Journal.

Disturbing Bees in the Brood-Chamber.

VICTOR W. CLOUGH.

The criticism on page 810 of the BEE JOURNAL for 1886, concerning the "non-swarming system," forcibly reminds me of my neighbor who says: "Bees! Well, I should say so; I have known all about them all my life. I want no bee-literature, or care to investigate any improved hives; the old kind are good enough for me." This old veteran has about 20 colonies, and for his whole apiary I would not give him one non-swarming hive. It seems needless to explain why. He is continually mourning over the poor season, no profit in bees, etc. Is there not a reason for all things? His bees have the same latitude, same fields, and exactly the same chance as mine, excepting in the house, which divides the difference. There is no season that my bees fail to procure a good yield of honey, and they are one of the most profitable investments I have. I never have any loss in winter. But one of my neighbors, who persists in overhauling the brood-chamber, in one winter lost 40 colonies.

I have a few colonies in common hives that I manipulate for surplus honey, their productions being from 50 to 100 pounds, and cast one and two swarms each. In the last three years those in the non-swarming hives have never swarmed, and produced 250 pounds of honey. All these are arranged in the same orchard, the bees visit the same fields, and why the difference in the yields, if not in the construction of the hives?

The critic recommends a "frequent disturbing of the brood-chamber" for a large surplus of honey. I wonder if he advocates punching a hen's nest in order to secure a greater hatch! One is as reasonable as the other. What a desirable job it would be, if the apiary contained a hundred or more colonies. This "frequent disturbing" is work which I do away with, and those who have faith in its usefulness are the ones I wish to compare notes with.

With my system I never move a brood-frame or disturb my bees in any way, only to remove the full sections and replace with empty ones. Here is what makes bee-keeping so easy and simple. All the difficulties and inconveniences of swarming are laid aside, and this is all left to the hive to perform, which it faithfully accomplishes.

Geneseo,⊸ Ills.

For the American Bee Journal.

Basswood vs. Linden.

S. T. PETTIT.

On page 805 of the AMERICAN BEE JOURNAL for 1886, appears a short report on the above heading, in which Dr. A. B. Mason complains that I take the ground in the *Canadian Bee Journal* that Canadian basswood honey is superior to the United States basswood honey. The report reads as follows:

"The Doctor thought it perfectly right to make Canadian articles distinctively Canadian, but it should not be done by casting unwarranted stigmas upon *our* productions. We should not try to elevate ourselves by pulling down others." Most certainly, I fully agree with the Doctor, that we should not cast "unwarranted stigmas" upon the productions of others; "nor try to elevate ourselves by pulling down others."

I confess that I am not a little surprised that any one, especially Dr. Mason, should disagree with me in this matter. I am fully persuaded that if the Doctor will take the trouble to get average samples of basswood honey from the different points of the United States, especially from near the southern limit at which this tree produces honey, and compare them with Canadian linden honey, that he will be the first to acknowledge the superiority of Canadian linden honey.

Mr. Muth, than whom perhaps no other man in the world handles more honey, classes United States basswood honey with late dark honey, and prices it accordingly. Before taking this ground, I took a great deal of pains to understand the matter, and consequently I feel quite solid in the position that I have taken. Without a question, basswood honey taken in the United States in our latitude, when the bees gather it under favorable circumstances, that is, not gathering at the same time inferior honey from other sources, the article is of the very best quality, and quite equal to Canadian honey. But it should be kept in mind that this strip or belt bears but a small proportion to that of the whole of the United States. In writing the article complained of I referred to the United States as a whole.

There was honey at the Industrial and Colonial Exhibition at London, England, from nearly all the British Colonies, and I am proud to say that samples of Canadian linden honey were the clearest and brightest on exhibition. Canadians would be very sorry indeed to have their fine, bright, sparkling linden honey classed with late, dark honey, and the price ruled down to the price of that article. Mr.

Macpherson did right in saying that there was no intention to cast a slur upon American honey. Not at all; I simply stated what I still believe to be a fact, and so, of course, I have no apology to offer.

Belmont, Ont.

[United States basswood honey is by no means *dark*, and is not so classed in this city. That it varies in different localities is true, but it is never dark.—Ed.]

For the American Bee Journal.

Developing the Honey Market.

R. F. HOLTERMANN.

The remark in Mr. Baldridge's article on page 774 of the Bee Journal for 1886, which, it appears to me, requires consideration, is that in regard to commission men. He states that they are responsible, to a great extent, for the present low prices of honey. Look, for a moment, at the great fall in the price of honey in Canada, as in the United States, for the last ten years. I do not believe that one per cent. of the Canadian honey has been handled and sold on commission; in fact, I am safe in saying that it is a practice which we have not resorted too, and in spite of that, surely no one will deny that our prices are low, and have dropped as low, proportionately, for about ten years, as in the United States.

In regard to allowing retailers to sell only at a certain figure, as do flour producers on Fox river, I need only to say honey has not yet become flour; it may be on the road to it—let us hope so at least; but families cannot do without flour. Our home market for honey has, as yet, to be developed, and I know it is quite difficult enough to do this, and if we offer such obstructions as indicated, we must suffer by hindering the development of our market. It is right enough to endeavor to secure a uniform retail price for a uniform article, but compulsion is not the method to be adopted.

As to what our aim should be, it is to sell as low as we are compelled to do, and have a fair remuneration for our product. This question will right itself; honey will find that level, and if it is below it now, the cheapness will develop the market, and eventually those not able (through locality, ability, or other circumstances) to sell as cheaply as others, will drop out; the remainder, or more properly, those under favorable circumstances, will remain and secure remunerative prices. But this is aside from the question at issue. We can never by any organization regulate the price of honey. Those likely to become members of such an organization are the same who do not demoralize the market; the others you cannot reach.

In Canada, whatever your movements are for the advancement of apiculture, they are outside of it, and they do just as they see fit, and you find you are behind, for you have only tried to do as you saw fit. On the other hand, I would not say beneficial results may not be obtained by an organization, which would have for its aim the union of bee-keepers in marketing their honey.

In every large city let a wholesale and retail (or retail only) honey-store be started by the honey producers' company, and competent persons put in charge to supply the existing demand for honey, and make every effort to create a further demand. Then let the organization have an early report of the honey secured for the season, etc. What we will secure by this method is this: The bee-keepers themselves will become the retailers in our cities, and they can put a stop to any practice injurious to their interests, and the middle-men will be greatly done away with; and without loss to the bee-keepers they can cheapen honey for the consumer. These two points alone are of immense value.

Brantford, Ont.

For the American Bee Journal.

Controlling the Honey Market, etc.

L. N. TONGUE.

I am glad to see bee-men coming forward on this important subject. The question to decide is, how can the object be accomplished so as to effectually take the honey out of the hands of those who ruin the price of honey? My plan is this: Let the Bee-Keepers Union have control of the matter. From statistics they can ascertain the honey crop next season, so as to fix a price that will pay the producer a reasonable compensation for his labor and capital, having in view the interest of the consumer as well. There is reason in all things, and I believe the Manager and Advisory Board of the Bee-Keepers' Union are as well qualified to judge correctly in the matter as any. (I would not wish to be understood to say that others are not as well qualified.) Some may ask, how can the market be controlled in this way? Why, just have leaflets distributed to each member of the Union, giving prices fixed upon by the managers.

The next thing to be done is this: Let each member canvass his locality, and buy up all the surplus from small producers, putting the same into the hands of middle-men to sell at a price fixed by the managers, thereby controlling the market most effectually. How about the funds to purchase this honey? As for my part, I would rather pay two dollars for this purpose than to pay one dollar to fight lawsuits. How about the men that are compelled to sell? Why, advance a reasonable sum, holding their crop as collateral security.

How is it, bee-men? Is this plan feasible? If not, give a better one. It seems to me something might be done to secure a reasonable price for our honey, and stop flooding the market by small producers.

Bee-men are asked their opinions as to publishing quotations on the honey market. My answer is this: If the plan proposed above, or some better one, is established, how is the wholesale man going to get honey to sell? This plan is going to bring the wholesale buyer *at your door.*

LEGISLATION — PRIORITY QUESTION.

In regard to the priority question, I for one am utterly opposed to any such legislation. I have no patience to write upon the question. I say down with it. In my opinion such a law would be unconstitutional.

Wonewoc,⊙ Wis.

For the American Bee Journal.

Successful Bee-Keeping, etc.

L. J. KEYES.

I have been interested in reading the reports of bee-keepers from different parts of the country, as to the amount of honey produced by given colonies of bees, and must say that I am somewhat surprised that none exceed my own efforts, taking into consideration the fact that three years is the extent of my experience in manipulating bees for honey. In this section of country the past season has fallen short of the average for honey, yet from 18 colonies put out in the spring, I harvested a few pounds over 1,400 pounds of comb honey in one-pound sections, and increased the number of colonies to 35, which I have put into the cellar in the finest condition possible.

I have come to this conclusion, by observation, that one hour's neglect in the heighth of the honey harvest is a loss to the bee-keeper. As soon as sections are filled they should be raised, giving room for work below while the capping is going on above. The hive I use contains eight frames, and is somewhat smaller than the Langstroth. Ah, some of the older members of the fraternity say, too small, too small; but remember this country is not California, nor Florida, but away up north; and, again, where are your 10-frame hives that go very far in advance of my small hives?

My section-cases are to exactly fit each other, and each section is provided with a full-sized tin-divider which makes them queen-excluding, hence there is no brood in the sections. I allow natural swarming, removing the old hive at the proper time to secure all returning bees in the new one. The section-cases are removed from the old hive and placed on others where the work will be continued, and thus work once begun in the sections it never ceases until completed, the capping being done 2 or 3 stories higher than where the honey was put in.

For wintering I use a rim the size of the top of the hive, 2 inches high (or wide), covered with burlap on both sides, and filled with dry forest leaves. The hives are tiered up, and the entrance left wide open. This plan of wintering suits me because it proves safe, which is all any one could wish.

In regard to the market I would say, if the National Bee-Keepers' Society would place a man in every large market to sell the members' produce, thus controlling the price, and take it out of the hands of commission men, I would join it and help support it, for it is so very unsatisfactory to deal with those who care nothing for your goods, so long as they get ahead of their competitors, and get their commission.

Nora Springs, ♂ Iowa.

For the American Bee Journal.

U. S. Honey-Producers' Association.

SAMUEL RAU.

The idea of a United States Honey-Producers' Association, as advanced by M. M. Baldridge, meets, in the main, my hearty approval, and if not too late, I second the motion for immediate action. Something of this kind is certainly the "one thing needful" for our pursuit just now. We need more thorough organization for our own protection. With very few exceptions, all the other pursuits are organized, from the doctors who stand by the cradle of our infancy, to the funeral directors who make the last grab at us as we go down to that bourne from whence no traveler e'er returns. This organization could gather statistics of the honey-yields in the different sections of our country, and fix prices accordingly. There would be, as a matter of course, some obstacles to overcome, but "where there is a will there is a way," and they can be surmounted.

The nail manufacturers, makers of stove castings, the tile men, manufacturers of stamped tin-ware, and many others that I could mention, regulate the prices of their productions quite successfully in this way, and why cannot we do the same? Then this organization would be the proper authority to give market quotations and reports. Leaving honey on commission is practiced some in this locality, and I gave it a trial last fall, but it was not successful with me. I went to a reliable party in a neighboring town, who was engaged in the drug and grocery business, and proposed to furnish him good honey in neat cases; he was to sell it at not exceeding 20 cents a pound, and pay me 15 cents per pound for what he sold. He accepted my proposition, and I furnished him the honey. But a fence-corner bee-keeper, who had a few colonies of bees, and kept a jewelery store, placed a few pounds of honey in his show-window and labeled it "16 cents per pound." His honey was inferior to mine, but resulted in the demoralization of the honey-trade in that town; and after leaving my honey on sale three months, only one pound of it was sold. So I departed for more inviting fields.

It seems to be the little birds that spoil the grapes. Those who have a few colonies of bees in a fence-corner behind the pig-pen, bring their honey to market in a slovenly condition, sell at other people's prices, and thus ruin the market. I refer to the home trade. We should be able to produce finer honey, and sooner or later, teach every one to distinguish between superior and inferior grades. I see no good reason why I should sell my fine-bred and well-developed horse for the same price that McCracken sold his ring-boned and spavined nag up at Cobtown; neither will I sell first-class honey for what some one sold third-class.

I hope to see immediate action taken in this matter. In a multitude of counsel there is wisdom.

Columbiana, ♂ Ohio.

For the American Bee Journal.

Uniform Price for Honey.

B. H. STANDISH.

I have been so busy producing honey and trying to make a living out of it, that I never have taken time to write an article for publication, and I only do so now because a subject of vital importance to me has been broached. In looking about, it is not difficult to find other occupations in which men, with no more capital or tact, are more sure of fair pay for services, than bee-keepers; but I cannot enter any of those occupations. I have spent a long and expensive apprenticeship in this. I find my capital invested in a business for which there is seldom a buyer. If such should come to me, I would have to study up some other business before it would be justice to my family to embark in it. I am in it, and like many others, I am forced to stay in it, as a doctor is forced to stay in his profession. Therefore I wish to help to correct its evils.

A man in Iowa says that he is glad that honey is being sold at 10 cents per pound. Perhaps the bee-keepers of that State can sell their honey without loss at that price this year. But how will it be next year? Unless producers do something about it, prices will be about the same then—at least not much higher—though the crop be one-fourth of the present crop. It has been my experience that every other year, on an average, brings either a light crop or a failure. Now if we sell the full crops at the cost of production, how are we to pay for the family crust out of the average?

I intend to have the commission merchants with whom I deal, sign an express contract, or I will not send them honey next year. This contract must have the following three points in it: 1. I am to fix the price at which the honey may be sold. 2. They must accept my weights. 3. If the honey is not sold I am at the expiration of 60 or 90 days, I am to have the privilege of transferring it, by paying freight and cartage.

Now, what I want is an Estimating Committee for the Mississippi valley; one for the Atlantic coast; and one for the Pacific coast, composed of prominent and active bee-keepers who are to estimate the size of the crop before shipping-time next year, and to fix a proper price for the same; issuing printed circulars to me, and to every other honey-producer in the land, with the above contract, or its equivalent, to be sent by producers to all commission men for signature, before shipments are made to them. This established price should be printed in all bee-papers instead of the present tricky system. Bee-keepers can be reached through the bee-papers, for probably nine-tenths of all prominent producers take them. These producers in nearly all cases would adopt the common price of the Estimating Committee.

Commission men then would be restrained from underbidding one another. Also those who are dishonest would be prevented, by the terms of the written contract, from making false returns. Prices in the large centres of trade would be fixed—by producers, not by sellers. Prices in small towns are largely influenced by prices in commercial centres. We could then have something to say about the prices in our home market.

Let me illustrate the influence of the present commission system on our home markets by the following:

I produce honey enough to supply our little village, and I usually have done so, after a few smaller producers have sold out. This year I placed some honey in a grocery on sale. A traveling commission man saw it, and the following conversation between him and the groceryman followed: "What do you pay for that honey?" I pay 14 cents per pound." "Well, I will sell you honey and warrant it just as good in every particular at 10 cents per pound. You see it is put into our hands on commission, and it does not make any difference to us at what price we sell it. We get our commission just the same." The grocer ordered a year's supply, and when it came it was as nice as was ever sold; but how much will my brother bee-keepers down near Rockford get for it? It needs no argument, but experience, to convince bee-keepers that not only their efforts to bolster up the market, but also the efforts of honorable commission men are paralyzed by the unscrupulous, who receive honey without firm instructions as to its sale.

Now is the time to appoint an Estimating Committee for next year. The working expenses of this committee need not exceed 10 cents per each producer. What do others think about it?

Evansville, ♀ Wis.

Convention Notices.

☞ The Annual Convention of the Vermont Bee-Keepers' Association will be held at the Van Ness House, Burlington, Vt., on January 13 and 14, 1887. R. H. HOLMES, *Sec.*, Shoreham, Vt.

☞ The Northeastern Michigan Bee-Keepers' Association will hold its fifth annual meeting on Wednesday, Feb. 2, 1887, in the Common Council Rooms, at Bay City, Mich.

W. Z. HUTCHINSON, *Sec.*

☞ The eleventh annual meeting of the N. W. Ills. & S. W. Wis. Bee-Keepers' Association will be held in the Grand Army Hall in Rockford, Ills., on the third Tuesday in January, 1887. There will be a two days' session. J. STEWART, *Sec.*

Local Convention Directory.

1887. *Time and place of Meeting.*

Jan. 13.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

Jan. 18.—N. W. Ills. & S. W. Wis., at Rockford, Ills.
J. Stewart, Sec., Rock City, Ills.

Jan. 19, 20.—N. E. Ohio, N. Pa., &c., at Andover, O.
M. E. Mason, Sec., Andover, O.

Feb. 2.—N. E. Michigan, at Bay City, Mich.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Feb. 3.—Wisconsin State, at Madison, Wis.
F. Wilcox, Sec., Mauston, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM
OUR LETTER BOX

Organization for Honey-Producers.—S. H. Mallory, Decatur,♀ Mich., on Dec. 31, 1886, writes :

I am heartily in favor of a honey producers' association, but I am doubtful about ever controlling the honey market. There are too many of the slip-shod class of bee-keepers to think of buying them out, as Mr. Baldridge suggests. But there are various ways in which such a society might do good. But I think that bee-keepers should be thoroughly organized ; and the sooner the better.

The Market Reports.—John Conser, Glenn,o+ Kans., says :

In regard to excluding the market reports of honey, given by the commission men in bee-papers, I say yes, so far as commission men are concerned. We have been damaged by their reports, as I think they make the prices to suit their business. I think that a good way to get correct reports, would be to let the secretaries of the bee-associations give the monthly reports in the leading bee-papers.

A Little Bee-Man's Report.—Vincent Quinn, Penn Yan,+oN.Y., writes :

I thought I would send in my report. Pa gave me one Italian colony in May. I beat pa, for I picked out his best colony in the yard. I got 60 pounds of honey, and it cast one swarm. Pa helped me to rear three queens to form nuclei, and I built them up to strong colonies. I now have 5 colonies in the cellar, and they are doing well.

Bees in a Green-House Cellar.—Joseph Heacock, Jenkintown,o\ Pa., on Jan. 1, 1887, writes :

I have my bees in one end of a green-house cellar. In the other end is a 10-horse-power steam boiler. A fire is kept up day and night from fall to spring for heating the green-house. A partition made of boards extends across the cellar between the bees and the boiler, and this is covered on one side with black, tarred roofing-paper. Where the bees are, it is as dark as in any dungeon—no ray of light can penetrate it. It is entirely below ground, but very dry, and the temperature remains at about 60° all the time. The bees are quiet at all times. I have just been in to see them. They came out on the alighting-board to see what I wanted, the same as they do when approached on a summer evening with a light. I have had bees for about 10 years, but I never gave them any attention until the past summer. In December, 1885, I found that some of my colonies were almost without food. I put up the partition in the cellar, took in the light colonies and fed them. The result was that they came out very strong last spring, while those that were left on the summer stands were very weak until almost midsummer.

Bees in Good Condition.—John D. Abel, Forest City,~o Mo., on Dec. 30, 1886, writes :

I have 21 colonies on the summer stands, not packed, but with plenty of food for winter. I got scarcely any honey last summer. I intend to place one and two pound sections on all the hives in the spring. I place a thick paper on the hive, then the top-board upon the paper. My bees seem to be in good condition now.

Bees in a Clamp.—A. McInnes, London, Ont., on Jan. 3, 1887, says :

I have 13 colonies in a clamp. The clamp never needs to be disturbed in winter or summer. It always has the same appearance. I keep the temperature from 40° to 50°, Fahr. My clamp is more for spring, as I can keep the temperature at 60° or 70°, or any degree desired. I have 4 colonies that are very weak ; there was only about one-half of a pound of bees in some of them. I am too near the city, and the bees get into the candy shops in the fall of the year and get lost. We are having very cold weather and lots of snow. My clamp is covered completely with snow. I can see the temperature every morning. The cold weather does not seem to lower it more than 1 or 2 degrees a day.

Excellent Results, etc.—Elias Fox, Hillsborough,+oWis., on Dec. 28, 1886, writes :

I send you a photograph of my Italian apiary, consisting of 60 colonies ; also of my mother, myself and family, and my dwelling, work-shop and ice-house. On April 15, 1886, I took from my cellar 40 very weak colonies. On April 25 I was called away for ten days, and during the time it turned cold, and my bees dwindled so that on May 13 my 40 hives contained probably enough bees to make 5 good colonies. I then bought 2 more, increased the whole to 60, and took 3,400 pounds of honey, and my bees have more honey than they will consume. One colony gave me 130 pounds of fine honey in sections, and a fine swarm, which gave me 50 pounds of extracted honey. Two other colonies gave me over 200 pounds each, and a fine swarm on July 4. From these 2 colonies I took 75 pounds of comb honey, and each had at least 40 pounds when put into the cellar on Nov. 15. I had some colonies that gave me no surplus at all, and some but little, but on the whole I think they did well, considering the condition they were in last spring.

[The " photo " is a nice one, and is placed in the Bee-Keepers' Album on our desk. With your bright-looking wife and three children, matronly mother, nice home and bees, you ought to be extremely happy.—Ed.]

Fixed Price for Honey.—Joel Helser, Huntington,δ Ind., writes :

In regard to a fixed price for honey in the United States, I would say, 16 cents per pound for choice comb honey, and 12 cents per pound for extracted.

Farmer Bee-Keepers, etc.—Wm. Robson, Rolla,⊙ Mo., on Jan. 1, 1887, writes :

For 20 years I have not known honey so low in price as during the past season. For the past 14 years I have been handling bees here, and I must say that I have never known white clover to yield so much honey as it did through June, and up to July 15. The farmers who happened to have a colony or two were very much elated over their surplus honey; some brought it to the stores in wash-boilers, some in wash-tubs and pails, utensils that looked as though they were for other purposes than being besmeared and daubed with such an unsightly mass of comb and honey ; for which they received in store pay from 10 to 12½ cents per pound. Consequently the market was not as good as in former years, for those who have been trying to tempt the taste with their one and two pound sections of honey. This question is often asked of me : " Why do you ask such a large price for your honey? Three pounds for half a dollar is too much. I can get it at the stores for a bit," (meaning 12½ cents). Some people would try to make a person believe that if it was honey that was enough ; but for my part, give me something else besides wash-tub honey. My bees have been put into winter quarters with ample stores, but not as strong in bees as I would like.

Splendid Season and Crop.—S. J. Church & Son, Cedar Rapids,o+ Iowa, on Dec. 30, 1886, write :

From 93 colonies, spring count, we obtained 11,000 pounds of honey, and 50 pounds of beeswax, and increased them to 130 colonies. All are wintering nicely in a cellar 12x12x7 feet, with the temperature varying from 40° to 50° above zero, but the most of the time at 45° above, which we think is about right. Our honey was all extracted but 2,000 pounds, and nearly all was sold in our home market; one bakery took the bulk of it at $6 per 100 pounds in barrels. Our comb honey sold for 10 cents per pound to grocers. We saved for spring feeding in the frames 600 pounds. The average per colony, spring count, is about 120 pounds. It was the best season and best crop we ever had. We worked on the tiering-up plan.

Poor Season for Honey.—S. H. Moss, Colchester,⊸ Ills., on Dec. 29, 1886, says:

I began in the spring of 1886 with 70 colonies. I have 120 packed for winter in good condition. My honey crop was 2,800 pounds of comb honey in sections, and 1,200 pounds of extracted. The season for honey was very poor. White clover was cut short with the dry weather, and the fall crop amounted to nothing.

The Season of 1886.—J. F. McMillan, Healey,♂ Ills., on Dec. 25, 1886, writes:

In December, 1885, I put 35 colonies in the cellar; some of them were very weak, as the fall flow of honey was very poor. I lost some, and after spring dwindling was over I had 22, some of which were weak. As soon as they commenced breeding nicely I equalized them as nearly as I could. I prevented swarming, so I had only 4 swarms, and one absconded. I made 3 nuclei, as I had procured an Italian queen. The flow of honey from fruit bloom and white clover was good, but basswood was nearly a failure. The fall flow was better than last year. I secured 920 pounds of comb honey, and 80 pounds of extracted. Some of my neighbors got but little. My bees are in the cellar now.

Good Report.—7—P. J. England, (23-35). Fancy Prairie,⊙ Ills, on Dec. 28, 1886, writes:

I have secured 4,635 pounds of extracted honey, and 15 pounds of comb honey from 23 colonies, spring count. I have also increased my apiary to 35 colonies.

Severely Cold Weather.—M. A. Gill, Viola,♀ Wis., on Dec. 31, 1886, writes:

One morning this week the temperature was 36° below zero. But the outlook is better, for it was up to 25° below zero yesterday. I have one cellar with 107 colonies in, that ranges from 47° to 51°, but another one with only 25 colonies has been down to 34°; but I think I have arranged it to-day so I can keep it above 40°. I would rather, if possible, that the temperature would never touch below 50° after Jan. 1. This may not be orthodox, but I think the facts are pointing that way for this climate. My yield the past season was small, on account of drouth and hail storms which killed the timber. I had 6,000 pounds of extracted honey, and 600 pounds in one-pound sections. I still intend holding on to the bees, and hoping for that "good time coming."

Use of Separators.—H. M. Moyer, Hill Church,⟜ Pa., says:

If one will produce comb honey in the best and most marketable shape each and every year, he must use separators; at least in this locality. I wish that I had never tried to produce honey without separators. In 4-entrance sections it is a little better, but also not satisfactory.

Poor Season.—C. P. Hewett, Kingston,⊙ Wis., on Dec. 18, 1886, wrote thus:

The past season was a very poor one. I have Italian, Syrian, and native bees, but have built up a strain of hybrids that are one-third larger than the other bees, and appear to be an established strain. They are the first out in the morning, and the latest out at night.

Governing the Price of Honey.—L. Eastwood, Waterville,⊸ O., says:

The first thing I read when I get the BEE JOURNAL is the market reports. Do not throw them out. I do not think the price of honey can be governed by laws or rules, any more than that of any other produce. The small bee-keeper usually "knows it all," and will sell his little mess of poor honey when he thinks best, which really affects the market much the same as "cow-grease" might affect the butter market. This must regulate itself, on the principle of supply and demand, and quality. In regard to "priority of location," I would say that at present I have the field here; but others were here before me, and should new bee-keepers come in, the question would simply be "the survival of the fittest."

The Way to Winter Bees.—F. A. Gibson, Racine,⟜ Wis., on Jan. 4, 1887, writes:

All of my colonies wintered last year except three, which were queenless. I doubled up some, sold some, and commenced the spring with 75. They did splendidly the past season. I took 2,000 pounds of comb honey, 6,000 pounds of extracted, and each colony has from 40 to 50 pounds to winter on. I allowed no increase. I have sold all my comb honey at 12 and 15 cents per pound; most of the extracted is sold at from 9 to 12 cents per pound. The bees are doing nicely in the cellar, which is at a temperature of 42° to 45°. I visited them when it was 42°, and found several large clusters hanging below the hive 6 inches. I do not put on bottom-boards in winter. In my estimation this is the way to winter bees. I keep the hives about a foot apart each way, with cushions of sawdust over the bees.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Market is well supplied with all the grades, and the demand is light. Prices are nominal at 11@12c. for white in 1-lb. sections. Fancy white in scant pound sections, 13c. Very little extracted is being sold, and prices range from 4@7c.

BEESWAX.—22c. R. A. BURNETT,
Dec. 8. 161 South Water St.

NEW YORK.

HONEY.—In consequence of a large stock of comb honey on this market, fancy prices cannot be maintained. Fancy white honey in paper boxes, or glassed, are in better favor here than the unglassed honey, hence the difference in the price. We quote present prices as follows: Fancy white in 1-lb. paper boxes, or glassed, 13c.; same unglassed, 12c., and in 2-lb. glassed sections, 10@11c.; off grades 1 to 2 cts. per lb less. Calif. comb, 8@10c.; fancy buckwheat 1-lbs., 8½@9c., and 2-lbs. 7½@8c. Extracted white clover, none in the market. Calif. ext'd, 60-lb. cans, 5@6c.; buckwheat, in kegs and barrels, 4@5c.

BEESWAX.—21@23c.

McCAUL & HILDRETH BROS.,
Dec. 7. 34 Hudson St.

BOSTON.

HONEY.—The demand has improved. We are selling one-pound packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.

Jan. 1. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—The market is a trifle more active. Best white comb honey in 1-lb. sections, 11@12½c. Buckweat, 10c. Extracted, 7@9c.

BEESWAX.—23c.

Dec. 13. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—There is a quiet tone prevailing, but the demand is fair for choice comb and extracted honey, in small packages. Manufacturers buy very sparingly. The supply is large and prices are downward. We quote prices for extracted honey, 3@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for choice yellow.

Dec.21. C.F.MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—The market is not very active and prices a little lower. Choice 1-lb. sections of best white sell at 13@14c.; second grade 1-lbs., 10@12c.; choice white 2-lbs., 11@12c. Extracted, slow at 6c.

BEESWAX.—Scarce at 25c.

Nov. 17. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—The demand for honey is only moderate and the supply ample, of very fine quality and in extra good order. We quote choice 1-lb. sections of white at 12@13c.; 2-lbs., 11@12c.; dark not wanted. Extracted, white, in barrels, half-barrels and in kegs, 6@6½c.; in tin packages, 6½@7c.; dark, in barrels and ½-barrels, 5@6c.

BEESWAX.—Nominal at 25c.

Dec. 13. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—The market has been rather duller the last week, but prices are well maintained, particularly for choice white extracted and choice white comb honey, as both kinds are not freely offered. We quote: 3½@4¼c. for extracted, and 9@12c. for comb; with easier sales for the best grades, than for the darker honey, as none seem to be able to use the dark just now.

BEESWAX.—Dull at 19@22c.

Dec. 11. SCHACHT & LEMCKE, 122-124 Davis St.

HONEY.—Trade is quiet. Extra white comb 11c; amber, 7½@10c. Extracted, white, 4@4¼c.; amber, 3½@3¾c.

BEESWAX.—20@23c.

Oct. 18. O. B. SMITH & CO., 423 Front Street.

KANSAS CITY.

HONEY.—Demand is good for all grades, and receipts have been very large of comb and extracted. Home bee-men have kept out of the market until this month; having glassed every lb. section on both sides they are reducing prices, selling 60 lbs. of glass with 160 lbs. of honey, making our market lower. There crop is about 70,000 pounds. We quote: White clover 1-lbs., 12@13c.; 2-lbs., 11c; ½-lbs., 13@14c.; dark 1-lbs., 10c.; 2-lbs., 8@9c.—California 2-lbs., 9@11c. Extracted white clover, 6c.; dark, 4@5c.; white sage Calif., 5½c.; amber, 5c.

BEESWAX.—22c.

Nov.20. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3¼@4c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5.; in cans 5@6c. Market dull.

BEESWAX.—Firm at 20½c. for prime.

Dec. 20. D. G. TUTT & CO., Commercial St.

The Report of the Committee on the Chapman Honey-Plant.

The Committee appointed by the North American Bee-Keepers' Society at the annual meeting held in Detroit, Mich., in December, 1885, to investigate the merits of the honey-bearing plant now being cultivated by Mr. Hiram Chapman, of Versailles, N. Y., met at that place on July 28 ; one member of the committee, Mr. Manum, of Bristol, Vt., was not able to be present, but as each member of the Committee was furnished with a sufficient number of plants to afford opportunity for observing their growth and habits, and also to gain some information concerning the value of the plant as a honey-producer, a letter from Mr. Manum, in which he gives the result of his experience and observation, is herewith appended.

This plant, which Mr. Beal, of the Michigan Agricultural College, and Mr. Scribner, Assistant Botanist of the United States Department of Agriculture, tells us is *Echinops Sphœrocephalus*, is an imported perennial, native in Central France, and like all of the family to which it belongs, very rich in honey. This plant will probably be popularly known in this country as the "Chapman Honey-Plant," so named on account of Mr. Chapman being first to cultivate it, and being first to bring it to the notice of those engaged in bee-keeping.

We found three acres of the plant in bloom, the height of the mature plant being from 3 to 4½ feet, and each root bears from 5 to 15 round balls or heads from 1 inch to 1¾ inches in diameter. These heads stand upright, and the entire surface is covered with small, white flowers bearing bluish stamens. The stalks and leaves so nearly resemble those of the common thistle that, were it not for the head, the difference would not be easily noticed. There is, however, in this particular, a very marked difference, the appearance of the head being aptly described by its botanical name, which signifies round-headed and in appearance like a hedge-hog.

The flowerets on the top of the head open first, then they open later along the sides of the ball, continuing in the order of nature around the entire surface of the sphere. Near the stem the last flowerets open, after the blossoms on the top of the heads have disappeared and the seed capsules of the first blossoms have hardened.

Unlike the thistle, the seeds are provided with no balloon by which they may be borne by the wind. The seed is in weight and appearance very like a small grain of rye, is enclosed in a capsule, and falls directly to the ground if not seasonably gathered, not spreading more than oats if left to fall without harvesting.

From the time of the appearance of the bloom upon the tops of individual heads, until the fading of the last blossoms upon the lower part of the head near to the stalk, is about 8 days, the continuance of the blooming depending upon the nature of the soil and the season ; but the heads or buds sent out from each individual shoot and forming each individual cluster, vary in degree and size, so that the natural term of blooming and honey-bearing may be safely reckoned at from 20 to 30 days. The term of blooming may also be prolonged to a considerable extent by cutting back a portion of the plants, and the facility with which the honey harvest may be thus prolonged constitues an important feature when estimating the value of this plant. The plant is hardy, easily propagated, perennial, and appears to flourish in all kinds of soil, and there is no danger of its becoming a pest or noxious weed. It does not bloom until the second season, and as it does not spread in seeding, its extirpation would be easily accomplished.

Its seed may be scattered in waste places, or it may be sown in drills or hills like onion seed. It seems to be characteristic of the plant to root out all other vegetation, and take possession of the soil. No weeds, and but very little grass was seen growing in the three-acre plot observed. (A ten-acre field sown broad-cast, and harrowed in like rye, has also made a vigorous growth, and seems to be taking possession of the soil in opposition to quack-grass and weeds.) As to the value of the plant to the honey-producer, there appears to be no room for doubt, whether quantity or quality, or both, be considered. Within reach of Mr. Chapman's apiary no other resources were accessible for honey-gathering, the severe and prolonged drouth having destroyed all other honey-yielding blossoms, and yet in some instances the bees were making an excellent showing in the hives. No definite conclusion could be reached as to the probable returns in pounds of honey from a given area. That the returns would be satisfactory was evidenced by the fact that the entire area was "alive with bees," and they visited the flowers from daylight until dark, and sometimes 8 or 10 bees were upon a single head at one time. Mr. Hubbard, who cultivated some of these plants, obtained from Mr. Chapman, reported that he had counted the number of visits made by bees to a single head from 5 a.m. to 7 p.m. He reported the number as being 2,135, actual count.

In order that the Committee might have some idea of the quantity of nectar secreted in the flowers of a single head, the day before our arrival, Mr. Chapman had wrapped a thin paper about a head, the half of which was in full-bloom, and tied the paper around the stem with tape, thus preventing the bees from appropriating the nectar for 24 hours. Upon removing the paper on the forenoon of the day of our visit, the flowerets were found to be dripping with nectar, and the drops sparkled in the morning sun. Each of us have made similar tests with like results since that time. We cheerfully and confidently recommend this plant to the bee-keepers of North America, as a most valuable acquisition to the list of bee-forage plants.

We believe that a trial of the plant will, better than any other words of approval from us, publish its own commendation.

Respectfully submitted,
L. C. ROOT, A. I. ROOT, N. W. MCLAIN.

Mr. Manum, another member of the Committee, reports as follows :

BRISTOL, Vt., Oct. 7, 1886.

MR. L. C. ROOT, *Chairman of the Committee on the Chapman Honey-Plant* — DEAR SIR : As I failed to put in an appearance when the Committee met at Mr. Hiram Chapman's, in July last, it is not only due to you, but to Mr. Chapman and the Convention as well, that I make a short report of my experience with the Chapman Honey-Plant. 50 roots of which Mr. C. so kindly sent me last spring. The plants thrived well through the summer under moderate cultivation, and planted on light, sandy soil. I did not take extra pains with them as I wished to test their hardiness. The plants commenced to bloom on July 14, and continued to bloom until Aug. 21, making 39 days that they continued in bloom, and from the first day of their blooming until the last the little flower-balls were covered with bees every day, from early morning until dark, rain or shine. (We had no very heavy rains during this period), the bees constantly going and coming. I have counted 16 bees on one ball at one time, all sucking the sweet nectar from the richly-laden flowers of the Chapman Honey-Plant.

At Mr. C's request I covered three of the balls with tissue paper and two with muslin. On the following day there were several bee-keepers here. I removed the paper from the balls, lo and behold, the flowers were filled, yes, covered, as it were, with honey. We found by holding the hand under one of the balls, and jarring it, the honey dropped in the hand enough to make several drops. In a moment a bee lit on one of the uncovered balls and never moved until its sac was filled, and it flew away. On timing them, I found that five bees filled themselves and flew away in 2 minutes and 20 seconds from the time the first bee lit on the plant. The two balls that were covered with muslin were now uncovered, but the honey seemed to have evaporated, as there was but little visible, although I had noticed bees alight on the muslin and try to suck the honey through the cloth. This fact was conclusive to me that the bees could smell the honey through the cloth.

I find that by cutting back the plants in June, they will bloom later in the season. This would be of advantage, perhaps, to those who are favored with an abundance of buckwheat for their bees to work on during August, as by cutting it back it would then commence to bloom the last of August, thereby affording good pasturage for bees in September.

In conclusion I must say that I am very well pleased with the plant, judging from this first year's trial, and I venture to say that the time is not far distant when it will be extensively cultivated for its honey-producing qualities. I expect to plant an acre next spring. Were it possible for me to meet with you at the Convention, I would move a vote of thanks to Mr. C. for having introduced this valuable plant. It is valuable not only to bee-keepers, but to the florist as well, because it is a very beautiful plant, and so very rare withal. I remain yours truly,

A. E. MANUM.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00..	
and Gleanings in Bee-Culture.....	2 00..	1 75
Bee-Keepers' Magazine........	1 25..	1 25
Bee-Keepers' Guide..........	.1 50..	1 40
The Apiculturist	2 00..	1 70
Canadian Bee Journal.........	2 00..	1 75
Rays of Light..................	1 50..	1 35
The 7 above-named papers	5 25..	4 50
and Cook's Manual.................	2 25..	2 00
Bees and Honey (Newman)...	2 00..	1 75
Binder for Am. Bee Journal..	1 60..	1 50
Dzierzon's Bee-Book (cloth)...	3 00..	2 00
Root's A B C of Bee-Culture..	2 25..	2 10
Farmer's Account Book......	4 00..	2 00
Guide and Hand-Book.........	1 50..	1 30
Heddon's book, "Success,"..	1 50	1 40

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

Convention Notices.

☞ The Northeastern Ohio, Northern Pa. and Western New York Bee-Keepers' Association will hold its 8th annual convention in Chapman's Opera House, at Andover, O., on Wednesday and Thursday, Jan. 19 and 20, 1887. First-class hotel accommodations are offered at $1 per day to those attending the convention. A general invitation is extended to all. M. E. MASON, *Sec.*

☞ The Wisconsin State Bee-Keepers' Association meets at the Capitol in Madison, Wis., on Thursday, Feb. 3, 1887, at 9 a.m. All progressive bee-keepers are earnestly invited to attend, and supply-dealers are requested to exhibit their best implements and inventions. The State Agricultural convention will be in session at the same time, commencing on Feb. 1 and closing on Feb. 4, which will be an additional inducement for many to attend. Hotel rates are from $1 to $3 per day. Return tickets will very probably be given over the principal railroads at reduced rates.

F. WILCOX, *Sec.*

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

As a premium to the second largest club we will send my mail, postpaid, a copy of the "Farm Account Book," worth $3. The postage is 20 cents.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

* * *

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

* * *

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

* * *

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

* * *

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

* * *

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00;** or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

* * *

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

* * *

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

* * *

Our Book Premiums.—To encourage all our present readers to get one or more additional subscribers we will present 25 cents' worth of books for every new subscriber (accompanied with $1 for one year's subscription), sent direct to this office. Thus for five new subscribers with $5, the getter up of a club gets $1.25 in valuable reading matter, to be selected by himself from our list on the second page of this paper. It will pay you to devote a few hours to the interests of the BEE JOURNAL. Every one who keeps bees ought to take it. We will furnish sample copies *free* in any quantity to those who intend to get up clubs. We expect to get 5,000 *new* subscribers for 1887.

* * *

The Report of the Indianapolis Convention is now published in pamphlet form, uniform with that of last year. It will be sent postpaid for 25 cents to any address.

We have also bound it up with last year's, together with the History of the Society; this we will mail for 40 cents. Or if you send us one *new* subscriber (with one dollar) besides your own renewal, we will present you with a copy by mail.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

* * *

A New Crate to hold one dozen one-pound sections of honey.—It has a strip of glass on each side, to allow the honey to be seen. It is a light and attractive package. As it holds but one tier of sections, no damage from the drippings from an upper tier can occur. We can furnish the material, ready to nail, for 9 cts. per crate. Glass 1¾c. per light, extra.

* * *

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

* * *

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

* * *

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

* * *

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

* * *

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

* * *

If you want a good printing office and newspaper, just write to James B. Gray, of Waverly, N. Y., who has a prosperous business to sell, on account of failing health.

Advertisements.

EVERGREENS.

FOREST TREES.—11,314,000 sold in 1886. Ten times as many ready for 1887. I offer the largest stock, greatest variety and lowest prices to be found in America. Wholesale lists free.

Geo. Pinney, Evergreen, Door Co., Wis.
2E2t

LOOK HERE!—We make the only Buckeye V-Groove One-Piece SECTIONS in America, to order—any size. Also, the Scientific Bee-Hive, and all other Supplies used by bee-keepers. For Price List, address **J. B. MURRAY,** ADA, O.
2C6t

1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says: "Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?"
AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

1A6t 7D6t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
45A12t

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street, Chicago, Ill

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

BEESWAX.

We pay **20c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

NON-SWARMING BEE-HIVES.

Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Write for Circulars.
VICTOR W. CLOUGH, GENESEO, ILLS.
51A6t

PRIZES!

ARE offered by the Magazine, to the Subscribers who obtain the largest amount of Comb Honey during 1887. Write for particulars. **THE BEE-KEEPERS' MAGAZINE, 25 cents per Year.**
1Atf **BARRYTOWN, N. Y.**
(Mention this JOURNAL.)

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

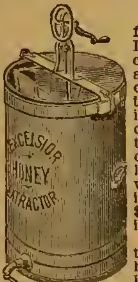
Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13 inches	......$8 00
For 2 Langstroth "	10x18 "	.... 8 00
For 3 " "	10x18 "	.........10 00
For 4 " "	10x18 "	.........14 00
For 2 frames of any size,	13x20 "	.........12 00
For 3 " "	13x20 "	.........12 00
For 4 " "	13x20 "	.........16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

ALSIKE & White Clover Seed. Wholesale and Retail.—E. S. Hildemann, Ashippun, Wis.
51-2-5

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by
THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

BEES FOR SALE.

50 **COLONIES of BEES**, in two-story Langstroth Hives, **for sale CHEAP.** This is a rare opportunity. February is the time for moving them.

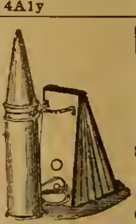
For further particulars, address,
GEO. B. PETERS,
(Senate Chamber), LITTLE ROCK, ARK.
1A2t

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street. CHICAGO ILL.

IMPORTED Italian Queen in full Colony, only $8.00 —O. N. BALDWIN, Clarksville, Mo.
4A1y



Bee-Keepers' Supplies

of all kinds kept in stock,
at low rates.
THE QUINBY SMOKER
a specialty.
Send for Illustrated Price-List.
W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive**, the Standard Hive of Vermont,

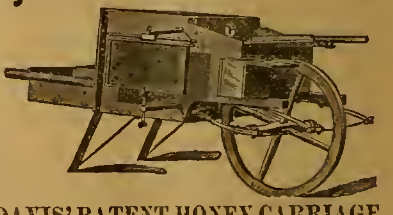
SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS, Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workman-like manner. Send stamp for Sample SECTION and Price-List. 2E12t

Systematic & Convenient



DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only..... ..... $18.00

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

READY TO SHIP. — Langstroth Brood-Frames, prepared to nail, at 90 cents per 100; 500 for $4.00. I have several thousand of those Nice Brood-Frames in the flat, which, if ordered before Apr. 1, may be had for $8 per 1,000, freight prepaid by C. W. DAYTON, Bradford, Iowa.
2Dtf

SEEDS

Large Garden Guide Free to all. You should have it. Best varieties, all tested, at low prices.
COLE & BRO., Seedsmen, Pella, Ia.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Jan. 19, 1887. No. 3.

I **Love** to see the setting sun,
Sink splendidly from sight;
I love to watch, while one by one
The stars peep out at night,
All Nature's charms, in short, I love,
Her forests, fields and bowers;
But, O, all other things above,
I love her many flowers.

* * *

He Who is Afraid of stings and thorns will never obtain the famous honey of Mount Hybla, for there the roses are guarded by the thorns, and the honey is defended by the bees.

* * *

There will be a Rush for supplies needed in the apiary after awhile, and we cannot do better than to urge all to look over their stock, ascertain what will be needed, and get it on hand before it is necessary for use—thus avoiding the perplexity consequent upon its possible delay in reaching them in time.

* * *

It is No Longer an Open Question whether newspaper advertising pays. What a business man now considers in this connection is how, when and where it can be done to insure the best returns on the investment. Have something of value to sell; then select the paper which sends the greatest number of copies to those who should use the article. Use as few words as possible, and let them be printed in large type, so as to catch the eye. These are some of the secrets of successful advertising.

* * *

Mr. E. C. Jordan, proprietor of the White Sulphur Springs in Fred Co., Va., and one of the foremost apiarists of that State, sent a useful Christmas present to the AMERICAN BEE JOURNAL. (It was delayed in transit, and was not received until Jan. 14.) It consisted of a heavy iron inkstand, with bottles for three colors of ink, and its name is "The Virginia." It is so heavy that it would be very difficult to upset it. Mr. Jordan has our thanks for his thoughtfulness, as well as for the nice present.

Many Encouraging and enthusiastic letters have been received, during the past month, showing the hearty welcome which the AMERICAN BEE JOURNAL receives at the homes of its many subscribers. We cannot spare the space in the JOURNAL necessary to print them, but our appreciation is none the less, for that. The following, from two of the most prominent bee-keepers in America, may be taken as samples of them all. We hereby tender our thanks to all for their "kind words," whether they have expressed their appreciation or not. One prominent bee-keeper remarks as follows:

> "I have often wondered how you can give us so good a paper at a dollar a year! It has been with much *pride* that I have seen the AMERICAN BEE JOURNAL rise from where it was when it came into its present editor's hands up to the *great excellence* of today. It has especially seemed to excel all past record during the year 1886, and I am proud to say that no bee-paper in existence (and I subscribe for them *all*) can begin to compare with it!"

Another correspondent and prominent apiarist writes:

> "I deem the AMERICAN BEE JOURNAL the best and most valuable of any I receive (and that comprises *all* that are published in the United States, Canada, and England). Its editor seems to be actuated by a desire not only to instruct and benefit, but also to make the AMERICAN BEE JOURNAL a distinctively *high-toned* periodical."

In order to keep up to the present "standard of excellence," the AMERICAN BEE JOURNAL needs five thousand new subscribers, and we hope to get them during the present year. Many are working with a will for its prosperity, and if a few more would do likewise, we should soon have the desired number of subscribers to make it pay at the reduced rate of a dollar. We would ask all to kindly do what they can to send us new subscribers for 1887.

* * *

The Union Convention at Albany, N. Y., was held last week. It was attended by those who usually go to such meetings in that State. The following were the officers elected for the ensuing year: President, W. E. Clark, Oriskany; Vice-President, Ira Barber, De Kalb Junction; Secretary, G. H. Knickerbocker, Pine Plains; Treasurer, J. L. Scofield, Chenango Bridge.

President Clark was re-elected, a fact which speaks well for his management during the past year. In his annual address he recommended delegate conventions instead of mass meetings, as heretofore held, and a corresponding better service to our pursuit. He said:

> One of the most important topics we are to consider is, how can we cheapen the cost of producing honey, a subject of more import to bee-keepers than any other. The subject of the middle man is also worthy of consideration. I do not think we can dispense with the middle man; but it is not right that he should make more money on one crate of honey than he does on two barrels of sugar. Comb honey is as much a luxury as butter, and ought to command fair prices to the producer. In conclusion, President Clark thought the best interests of the industry would be served by having a delegated convention, instead of assembling in a general way, as now.

* * *

Any One who cannot debate a point or theory without attacking the motives of his opponent, does not understand the first principle of friendly discussion.

The Canadian Bee-Lawsuit was brought before the Convention of the Ontario Bee-Keepers' Association, at Toronto, and "it was decided to take no action—the defendant not being a member of the association, and it being manifest that the law-suit had grown out of a dispute between neighbors." The action in this case, McIntosh *vs.* Harrison, was taken by the plaintiff "to compel the defendant to abate a nuisance in the shape of bees kept on his premises." As we understand that the apiary has been destroyed by fire, there will be nothing to complain of—the nuisance (if there was any) having been abated long ago.

As Mr. Harrison was not a member of the Ontario Bee-Keepers' Association, or any other society of bee-keepers, including the National Bee-Keepers' Union, it seems that he had no claim to the assistance of any one—especially in a neighborhood quarrel. Everything indicates that a bad state of feeling and much vituperation pervaded both litigants, and but for this, in all probability no lawsuit would have occurred.

At the Toronto convention Mr. J. B. Hall, of Woodstock, who had been cited as a witness in the case, expressed the firm belief that the judges would give a fair decision, when the matter came before a full court. We hope that such will be the case, and await the verdict of the court.

* * *

We have Received a copy of "The Book of Plant Descriptions, or Record of Plant Analyses," by Prof. Geo. G. Groff, a learned apiarist of Lewisburg, Pa. This valuable acquisition to botanical literature contains a synopsis of the terms most frequently used in plant descriptions, a schedule of botanical laboratory work, and a list of suitable subjects for theses.

The book is prepared for the use of both teachers and students, and is a very nice assistant to those interested in plants and flowers. It could also be used to an excellent advantage by bee-keepers, as by its use they would be enabled to analyze, and keep a record of the many honey-plants which beautify their surrounding country. The price is 45 cents per copy.

* * *

Mrs. McKechnie, of Angus, Ont., who personally manages about 100 colonies of bees, occupied the chair during part of the recent sessions of the Ontario Bee-Keepers' Association, and did so very gracefully. The Rev. W. F. Clarke asks:

> "Is not this the first recorded instance of a lady bee-keeper filling such a position?" and then he adds, "Score one for Canada!"

No; 'Tis well! but it is NOT the first! We have been present at conventions where Mrs. L. Harrison has filled the chair very gracefully. One of which was at a session of the Northwestern Society, held in Chicago!

* * *

The South Platt, Nebr., Bee-Keepers' Association, lately organized with nine members, and representing 186 colonies of bees, elected as officers the following: President, Geo. W. Warren, Harvard; Vice-President, J. R. Kidd, Clay Centre; Treasurer, A. B. Reed, Glenville; Secretary, C. K. Morrill, Harvard. The meeting adjourned to March 7, 1887, at the Court House in Clay Centre.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Feeding Bees in Winter.

Query, No. 362.—What is the best way to feed bees in the winter, that are short of honey? I have 2 colonies that have been robbed of their winter stores, and I wish to save them if possible.—H. W., Mass.

See my article on feeding bees, on page 741 of the BEE JOURNAL for 1886.—G. M. DOOLITTLE.

Put candy over the frames, and cover it with a woolen quilt or blanket. The bees should be in a cellar.—W. Z. HUTCHINSON.

Give them frames of sealed comb honey.—J. E. POND.

Put in full frames of honey, if you can get them; if not, use a soft candy made from coffee A sugar and water. Place it on top of the frames in cakes or bars.—H. D. CUTTING.

Put them into the cellar and lay some sugar candy over the frames as near as possible to the bees. The candy is quickly made, by mixing honey and powdered sugar.—DADANT & SON.

Make a candy of granulated sugar and lay it over the frames; or, what is better, use the "Good" candy, made of powdered sugar and extracted honey. Comb honey can be fed in the same way.—G. L. TINKER.

Pile combs of honey one upon the other, with the sides flatwise over the cluster, until there is enough to last until spring, after which adjust the packing.—C. W. DAYTON.

Feed "Good" candy, or else fill the combs *a la* Dr. Miller. I prefer candy laid over the combs, if one must feed. I should never permit bees to go into winter with so little food.—A. J. COOK.

I will let others answer that have had more experience. It is a blunder to have bees in such condition. The time to feed is when they can fly freely—JAMES HEDDON.

I think the very best way is to give combs of honey, either laying them on top of the cluster or hanging right in or beside the cluster. At any rate, see that the bees get to the honey.—C. C. MILLER.

I am now wintering some of my colonies on a mixture of standard A sugar and extracted honey. The sugar was mixed into a stiff mass by adding extracted honey and kneading the mass until it was stiff enough to pack into shallow frames, and these were placed right over the cluster on the tops of the frames, and covered up warmly. These colonies had a flight on Dec. 18, and were in splendid condition. Granulated sugar will not answer for this purpose. A few colonies fed on the best unrefined New Orleans sugar, mixed as described above, are also doing well.—G. W. DEMAREE.

Lay a frame of sealed honey on ½-inch sticks on top of the frames, immediately over the cluster, and cover with the quilt. Bee-candy placed in the same position will answer, but not as well as the honey. When you put the colonies out in the spring, the same robbers will "clean" them again, unless you are very careful.—J. P. H. BROWN.

Place frames of honey flatwise over the frames, being careful not to chill the bees, by letting the warm air escape.—THE EDITOR.

Steam in a Bee-Cave.

Query, No. 363.—I have 15 colonies of bees in a small, dry, warm cave; but since I put them in, there is steam in the cave. Is this steam injurious to bees? If so, what shall I do about it?—G. W., Mo.

Give a little ventilation.—DADANT & SON.

The steam results from evaporation, the bees causing it in throwing off the water part of their food, and, with me, it does no harm.—G. M. DOOLITTLE.

I would make some small ventilation at the top and bottom, care being taken not to reduce the temperature too much.—J. P. H. BROWN.

The steam will do no harm if the cave is warm enough, and there is ventilation for the steam to get out.—G. L. TINKER.

If the temperature is high enough, I do not think the dampness injurious. There is probably no better method of removing the dampness than by ventilation.—W. Z. HUTCHINSON.

Probably not if bees remain quiet. Ventilation would remove the steam. The steam indicates saturated atmosphere, which I should feel afraid of.—A. J. COOK.

I infer that the cold air rushing in when the cave is entered, caused the steam, in which case it would not be injurious. The disturbance produced by visiting the cave often may be detrimental.—C. W. DAYTON.

Ordinarily, no. A ventilator pipe reaching to within 3 or 4 inches of the floor would help you. If you had given the degree of temperature, it would be a help in answering such questions.—H. D. CUTTING.

Dampness will do no harm, if the temperature is not too low. To get rid of the "steam," open ventilation, and raise the temperature.—JAMES HEDDON.

It may, and it may not be. If the cause is lack of ventilation (and I should judge it was), ventilate; but be careful and not reduce the temperature too low, or render it unequable.—J. E. POND.

I do not know whether there is any harm in the steam. It may be that upon opening the cave, the air therein being cooled shows steam, whereas any one in the cave before you opened it would say there was no steam in the cave. At any rate I think I should want some provision for ventilation, for if the air is sufficiently pure otherwise, I should not be much afraid of the steam. Still, you can tell better about it by seeing whether the bees appear quiet.—C. C. MILLER.

If there is "steam" in your cellar, I think you will find everything dripping wet after awhile. The reason that bees will not winter in a cellar in this climate, is on account of dampness. In my fruit and vegetable cellar, which is frost-proof, there is a curtain of burlap hanging at an inner door, to keep the cold air from entering when the outer door is opened, and this cloth shutter is sometimes as wet as water can make it.—G. W. DEMAREE.

Though the steam is quite harmless, it can easily be removed by giving very slight ventilation.—THE EDITOR.

Dampness in a Bee-Cellar.

Query, No. 364.—I built an addition to my house, 16x20 feet, and it is only single boarded, and a rough floor laid over the cellar. I put 36 colonies in on Nov. 9, all in good condition, and the cellar is wet and cold, so the water stands in drops on the under side of the cover, and the bees are very uneasy. My bees are in one-story Simplicity hives, just as they were on the summer stands. What would be best to prevent such dampness?—New York.

Not knowing the temperature, I should say it was too cold.—H. D. CUTTING.

See my answer to Query, No. 363.—JAMES HEDDON.

If you can keep the temperature of your cellar between 45° and 48°, the drops of water will do no harm. I should judge that the cellar was too cold.—G. M. DOOLITTLE.

Keep the cellar warmer. If the temperatute were up to 45°, Fahr., and well ventilated, it would be different. The main thing, I think, is to keep the cellar between 38° and 48°, Fahr. —A. J. COOK.

You made a mistake in putting your bees into the cellar. I should use a small stove to temper the atmosphere, and to keep it as near 45° or 50° as I could.—J. P. H. BROWN.

In my opinion, such a repository as you describe, is a perfect "bee-killer." I should put a coal-stove in that cellar and keep the temperature at the point where the bees are most quiet.—W. Z. HUTCHINSON.

If the moisture is on the under side of the hive-covers, they need more upward hive-ventilation. If it is on the cover of the cellar, it will do no harm. The driest of atmospheres contain some moisture which may condense and adhere to cold surfaces. To prevent the dampness on the cover of the cellar, keep a fire in the room above, or cover the floor of the room with sawdust.—C. W. DAYTON.

The best would be to make some fire in that cellar, and with a little ventilation it would soon be dry. We would put some straw or fodder over that floor.—DADANT & SON.

The dampness of itself will do no harm. Keep the temperature equable at about 45°, Fahr. If you cannot do that, your bees would be better off on the summer stands.—J. E. POND.

I should put a stove in the cellar and dry it out by a slow process—give ventilation at the tops of the hives until the bees are dry and quiet. Want of proper exhalation from the bodies of the bees is the cause of all uneasiness and disease in bees during the winter months, and cold is at the bottom of all this. Such is my experience in my apiary.—G. W. DEMAREE.

Perhaps plaster of Paris, or lime, put in occasionally might help matters. Let in what air you can without cooling the cellar too much. You might try a hive or two with a little more upward ventilation, or perhaps better still, give very abundant air at the entrance.—C. C. MILLER.

Dampness does no harm of itself. It is cold and dampness that does the mischief. A damp cellar should be kept warmer than a dry one, because at the same degree cold is more severely felt in the former, owing to the more rapid conduction of heat. We feel the cold on a damp day much more keenly than on a dry day. If the cellar is wet and cold, warm it up, by all means. It is entirely practicable to use a stove in a cellar where there are bees, to warm it up and drive out the dampness, the wet and the cold, and thereby save the bees. The light may be closed in by any safe and suitable means. A faint light, especially in the evening, does little injury.—G. L. TINKER.

Put a fire into the bee-cellar at once, and keep the temperature at that degree which insures quietude to the bees.—THE EDITOR.

Convention Notices.

☞ The Northeastern Michigan Bee-Keepers' Association will hold its fifth annual meeting on Wednesday, Feb. 2, 1887, in the Common Council Rooms, at Bay City, Mich.

W. Z. HUTCHINSON, *Sec.*

☞ The next meeting of the Hardin County Bee-Keepers' Association will be held in Eldora, Iowa, on Feb. 12, 1887, at G. W. Ward's office, at 10 a.m. Our monthly meetings are very interesting, and we hope for a large attendance.

J. W. BUCHANAN, *Sec.*

☞ The Northeastern Ohio, Northern Pa. and Western New York Bee-Keepers' Association will hold its 8th annual convention in Chapman's Opera House, at Andover, O., on Wednesday and Thursday, Jan. 19 and 20, 1887. First-class hotel accommodations are offered at $1 per day to those attending the convention. A general invitation is extended to all.

M. E. MASON, *Sec.*

☞ The Wisconsin State Bee-Keepers' Association meets at the Capitol in Madison, Wis., on Thurday, Feb. 3, 1887, at 9 a.m. All progressive bee-keepers are earnestly invited to attend, and supply-dealers are requested to exhibit their best implements and inventions. The State Agricultural convention will be in session at the same time, commencing on Feb. 1 and closing on Feb. 4, which will be an additional inducement for many to attend. Hotel rates are from $1 to $3 per day. Return tickets will very probably be given over the principal railroads at reduced rates.

F. WILCOX, *Sec.*

Correspondence.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ⌐O northwest; O\ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Sections Filled with Comb.

G. M. DOOLITTLE.

When I first began bee-keeping I found that one of the greatest hindrances to my being a successful comb honey producer, was that of getting the bees to work early in the season in the boxes or surplus arrangement. Often the best part of the season would pass away before a bit of work would be done, save in the brood-chamber, the result of which was little surplus honey in marketable shape, with the body of the hive overloaded with honey, and but weak colonies of bees (owing to the honey crowding out the queen) for winter. This state of affairs worried me, and I began experimenting earnestly to see what could be done to overcome the difficulty. I soon found that wherever a frame of brood was placed, if within a reasonable distance of the main cluster, then the bees would commence work on either side of it, especially on the side between this brood and the main cluster.

Taking advantage of this fact which I had learned, about ten days before the main honey harvest commenced, I would place an empty frame in the centre of many of the colonies of bees, leaving them there for 8 or 9 days, when they were generally found full of nice white drone-comb which contained brood in the egg and larval form. I now cut these combs in pieces about 3 inches square, and fitted a piece into as many boxes as I had colonies which refused to work in the surplus apartment. As soon as such boxes were placed on the hives, the bees would take possession of them, at once going to work, and in a day or two work would be commenced in the rest of the boxes also. As this was in the days of 6-pound boxes, this piece of comb was all out of sight so that the darker color of this central comb did not show to injure the sale of the honey. However, I did not like the practicing of anything that looked like putting the best side out, so I kept on experimenting, when I soon found that a few partly-filled boxes left over from the previous season answered the same purpose, only I had to use about three times as many as I did of the brood. As this took many more such boxes than I would have on hand as a rule, I still used the brood to some extent.

The next season I began getting combs built during fruit-bloom, going to each hive every five days and cutting out the comb before any of the larvæ in the cells were large enough to soil the comb. These combs thus obtained were fitted into the boxes, which, in addition to those left over from the previous year, gave me all I needed, so that the using of brood was entirely dispensed with, except occasionally on a very obstinate colony which would scorn all my persuasion except brood. I have never known brood placed in boxes to fail in making the most obstinate colony work in them, and I sometimes resort to it now in these days of sections and comb foundation, putting the sections, when finished, in the third grade of honey.

Upon the advent of comb foundation, to supply my lack of poorly-filled sections, I would place frames filled with foundation in the centre of strong colonies of bees prior to the honey harvest, so as to get the foundation drawn, feeding, if necessary, to accomplish this object, so that I might have all the sections filled with comb which I needed. This latter plan I have seen recommended by many others since I adopted it, scores having secured by its use crops of nice white honey exceeding by far any hitherto produced.

After passing through all of this experience, and becoming so thoroughly convinced that I was right, as to write several times for the AMERICAN BEE JOURNAL and other bee-papers, that I considered "sections filled with comb left over from the previous season better than money in a bank," imagine my surprise on reading the advice given by Mr. Dibbern, on page 774 or the BEE JOURNAL for 1886, where he says that to bring Mr. Thielmann's ideas up to modern times, he should "after extracting cut out the combs, melt them up, and burn the old sections." After all these years of labor and experiment to accomplish a thing which to me and others seems the very heighth of perfection, why are we now called upon to "cut out the combs" and "melt them up?" I have carefully re-read Mr. Dibbern's article, and I fail to find any reason given for such a procedure; neither do I find any reason given for the burning of the old sections.

With me, sections five years old are as clear and bright as any. To be sure, he says that sections "must be scraped of every particle of propolis," but there is no reason given for preferring new sections, after being so scraped, to old ones. Many of us cannot afford to purchase sections for the fun of burning them up, even if Mr. D. can. As I said of "modern transferring," so I say of this "modern comb honey production," if any man has plenty of money to "throw at birds," I do not object to his doing so, providing he does not cause his family to suffer; but I do object to having it made to appear that if we would keep abreast of the times, we, who cannot afford it, must go to such a needless waste of time, labor and money, as Mr. D's modern honey-producing calls for. If Mr. D's surplus arrangement is so faulty that his sections are soiled the first year so as to be unfit for use the second, I would advise him to look about and get something better.

I perfectly agree with all that Mr. D. says about getting "honey in the best possible shape," and putting it upon the market in "faultless packages," having all graded and in workmanlike shape, as it should be, but I do not see why all this cannot be done without all the labor, expense and waste be advises in his last paragraph.

Borodino,⊙ N. Y.

For the American Bee Journal.

The Honey Market Reports.

DR. C. C. MILLER.

In continuation of what I formerly said on page 6, there is this objection to the wholesale commission man: He stands as an additional middle-man, and must have his pay for his labor in the form of the commission, and from this results the fact that the producer gets just so much less, or the consumer pays just so much more than he otherwise would. But this same objection holds equally against wholesale dry-goods merchants, or, indeed, wholesale merchants of any kind, and we could hardly dispense with all wholesale merchandising. It is all right to cultivate the home markets, and probably none too much has been said urging this, but certainly we must not go to the opposite direction so far as to say that no honey whatever must be sent to the city markets. Much can, no doubt, be done to increase the consumption in the home market, but there are cases in which the home market is in such condition that it is but right that the denizens of the city should have a taste of our delicious sweets.

Whatever may be in the future, in the past the only thing to be done was to sell to the city wholesale buyer or send to the wholesale commission man. I have done both ways, and where I could sell outright for cash I liked that plan much the best, but if, by shipping to a commission man, my honey would net me 10 to 20 per cent. more than outright sale would bring me (as has been the case), then the commission man was a blessing to me.

As to publishing the reports of commission men, there is some weight in the objection that Mr. Baldridge makes, that they get a good deal of free advertising; but I am not sure that they are to blame for it. If we cannot get the information any other way, we must be glad to get it through them, even at the expense of giving them a free advertisement. The thing we want is, to have all the light and knowledge we can get, and what objection is there to getting it from the commission men? If honey is sold in a certain city at a certain price, is it not right that this fact should be published? Mr. Baldridge says: "They are to a great extent responsible for the present low prices that prevail everywhere for honey." There is, I believe, much truth in this. It results from the fact that some of them report the price of honey at a figure lower than that for which they are actually selling.

A producer, Smith, sends some honey to a commission man, Jones, and Jones sells it at 13 cents per pound when his market report reads 11 cents. Thirteen cents is really the market price, and there is no difficulty in selling at that price, and Jones is selling all honey of like quality at that price, but by quoting it in the papers at 11 cents, he makes Smith believe he is getting an extra price. So far, no great harm is done, for Smith gets just the same for his honey as if the market quotation had been correct. But here is where the trouble comes. A producer in the country taking the report as literal truth, and basing his price upon the printed report, sells his honey for 2 cents less than he ought, thus demoralizing the market. What is the remedy? Exclude the commission men's reports? Before their reports were given, we had quotations of wholesale buyers, and their prices were still lower, and the producer in basing his price upon the printed quotation, did not always discriminate between the two, but if 11 cents was quoted it meant all the same to him whether it was buyers' or commission men's quotations. What shall we do then? It will hardly do to omit reports altogether.

Friend Newman, on page 771 of the BEE JOURNAL for 1886, says: "Of course market quotations on honey must be published," (and he is surely right) "and if not supplied by the commission men, they must be made by the producers, or a selected committee by the producers' association." As yet the producers' association cannot make them, and I can hardly see how producers can make them, so at present it seems to be left to the editors and wholesale buyers and commission men.

But the difficulty comes back, can we get reliable reports? As already intimated, there have been cases where it looked to me as if the quotations were too high. At any rate, after shipping to a point where a high figure was quoted, I have received much less than the quotations. In this case did the dealer quote a higher figure than he had any idea of obtaining for the sake of custom, or did he quote what he really could sell for and was selling for; and did this attract such large shipments as to suddenly depress the market?

The whole matter of obtaining reliable quotations is in some places beset with difficulties, but at present I see no better way than to continue the present plan, and if there are any who make dishonest reports, let such reporters be reported. It is not a very difficult thing to find out by making inquiries something about prices in the large cities, and if there are those who give wrong quotations, if they know the matter is being looked after they may be induced to be more careful. I see no reason why we may not have as reliable quotation for honey as for other products.

Marengo,δ Ills.

For the American Bee Journal.

Marketing an Over-Production.

C. W. DAYTON.

Many are wedded to the idea that because honey is a glut on the market in Chicago, it ought to bring a corresponding price away out here in the country. This is turning relations bottom upwards, and for the sake of apiculture it should be deserted.

In a recent issue of *Gleanings*, three causes for the low price of honey are given as over-production, general depression of trade, and adulteration. Of the first we have lack of consumption; the second has no effect, except in paying debts already contracted; and as to adulteration affecting the price of pure honey, it is hardly admissible. It is certain that the more glucose there is in the honey the lower will the price of the mixture be, but when we come back to a pure article we will find the old and corresponding price that is regulated entirely by consumption at present, and has fair prospects of being so regulated for years. Adulteration does not affect standard gold.

When we have produced more than will be consumed as a luxury, then it must supersede other sweets. I find white clover at 7 to 8 cents per pound with the corresponding lower grades to be an able competitor. It is reported that the price of cane-sugar is now at or below the cost of production. The general consumer has not yet learned to supersede sugar with honey; they cannot at present, because there is not enough honey produced for the purpose. There are some "weak hearted" bee-keepers who have not the push and vim to place their product before the consumer, who are trying to sell their product at home, and are thereby advancing the making of honey a cheap article of food, even while it might remain a high-priced luxury. I know of grocerymen who buy nice comb honey at 10 to 11 cents per pound in trade, and sell it at 15 to 20 cents per pound for cash. I know of others who buy comb honey built crosswise of the rows of sections, for 10 cents per pound, and will not pay any more for my choicest one-pound sections that can be removed from the crates like so many bricks.

I have become so disgusted with grocerymen that I often forget them when selling honey. There are bee-keepers in my neighborhood who advertised honey at about 6½ cents per pound, while 9,000 pounds was easily sold at 8 to 10 cents per pound, and there was hundreds of calls for more.

I have driven to the most business corner in a city and retailed 500 pounds in pails, pitchers and jars, in 4 or 5 hours, and in this I have not mentioned an exceptional instance. But the greatest excellence usually comes with the greatest labor, and this saying is as true with selling honey as it is with anything under the sun. A good salesman, in my opinion, exercises more home-made science than a dozen who handle bees; and the fact that a grocer makes as much in a few hours by handling honey over the counter, as the bee-keeper does in bending his back over the hives all summer, attests the truth of this statement.

It requires ingenuity, skill, and no small amount of energy to go into a dull town and collect a crowd to sell them honey. The production of honey is a very pleasant business—it is the down-hill side of bee-keeping. To sell the honey is beginning to appear like up-hill business, and we should not be slow in learning to share the good with the bad, if as such we are disposed to view it. When one finds a soft retreat, and makes it known, he may soon enjoy much company. A perfect honey-producer should be an expert at handling bees and selling honey as well.

When we have become so numerous that it will pay regular honey buyers in our towns, then it is probable that the usual bee-keeper will take his honey to town and accept the price offered by the buyer, who sells it again, as do the above-mentioned grocerymen. I like to pass by the grocerymen when out selling honey, as then I may reach home without being duped.

In other years I shipped honey to the large markets. The highest price obtained for extracted honey was 6 cents per pound, and the lowest was nothing per 300 pounds. This year, being somewhat at leisure, I experimented a little in the honey market, and purchased of a producer near by, the finest comb honey, at a price that netted him less money per pound than was realized for my extracted.

One apiarist shipped his extracted honey to St. Louis and realized 2⅛ cents per pound.

Yes; the greatest bar to the consumption of honey is adulteration, but the adulteration comes about in this wise: Years ago when Mr. Doolittle and others obtained 25 to 30 cents per pound for honey, the merchants and others found it profitable business mixing honey with sugar, as that was cheap. The improved methods of handling bees rendered honey more plentiful, and consequently the price began to fall. This necessitated the use of a cheaper and poorer basis for its manufacture, and as a matter of course it ended with glucose.

On this the lovers of honey innocently feasted until they were sick and disgusted. Upon looking around themselves, they discovered that there was the real "bee-honey" and the adulterated, so they inquired for "bee-honey," and had confidence in bee-keepers. Then was extracted honey of good sale. Presently the apiarist, to obtain a larger yield, perceived the idea of taking the honey from the combs as soon as it was gathered, and before the water had evaporated from it.

From some of these reasons there are many who can say that extracted honey ferments, or that there has been too much of the stuff sold. Take a fine article that has remained in the combs until it is thoroughly ripened, and we will find those who will not even look at it, much less taste of it. Others will taste, and buy a trial pound; the next time it will be 10 pounds, and end with a 100-pound keg for winter, the last time around.

It is not the over-production or present adulteration of honey that is the greatest obstruction to the use of extracted honey. People have been duped and be-fooled so much that they think there cannot be any good honey outside of the combs, and many have not the faith to experiment. It may be seen that the apiarist of to-day must tear down and remove much that has been done heretofore, and begin to build from near the foundation.

Bradford,6 Iowa.

For the American Bee Journal.

Excluding Market Reports.

M. M. BALDRIDGE.

On page 771 of the BEE JOURNAL for 1886, the Editor requests his readers to express themselves upon the matters set forth on page 774, in my article on the "Honey Producers' Association," but cautions them "to take time to *think* before writing."

On page 810 of the same volume, an Iowa reader hastens to tell what he thinks about my "proposition to exclude the market reports from the bee-papers." He says: "If two editions were published to accommodate both factions," that he would "rather have the one containing the market reports." It is evident to me that this Iowa correspondent is not a very critical reader, and that he did not "take time to think before writing." Why? Because there is nothing in my article about excluding "the market reports from the bee-papers!" What I had to say was simply in regard to excluding, from the bee-papers, the market reports on honey as fixed and manipulated by the *wholesale commission men.* This being the case, will this Iowa reader please "take time to think" over and answer the following question? Suppose the honey-producers of the United States would form an association, and from its members select a committee competent to fix a fair, living price for honey, based on supply and demand, for both producer and consumer, which market report would you then rather see in the bee-papers—the one thus prepared and agreed upon by the association, or those fixed and manipulated as now by the wholesale commission men? Come, now, get right down to business and give us your best thoughts upon the subject.

On page 811 of the same volume, a Michigan reader tells what he thinks about "excluding the market reports of commission men." He says these reports "are generally the first thing" that he reads; that he would rather dispense with "any other part of the paper," and that they "benefit" the bee-papers "as much as they do the commission men."

I regret to see that this Michigan correspondent did not "take time to think before writing." But, if he did "take time to think," he forgot to send us the thoughts we so much desire. He says the market reports of commission men are "generally the first thing" he reads, but neglects to tell *why.* Will he please tell us why he reads them, and of what value they are to him, or to honey-producers? Does he read them for the express purpose of being governed by them in the sale or the purchase of honey at home or abroad? If so, then that is one of the reasons we want them to keep out of the bee-papers. If honey-producers wish to *donate* their honey to retailers or consumers, they can do this without any further aid from the wholesale commission men.

But, says the Michigan reader, these market reports are of as much "benefit" to the bee-papers as to the "commission men." Now, is this true? Pray tell us of what benefit it is to a bee-paper to have the price of honey fixed and manipulated by commission men instead of by honey-producers? Does any one suppose that it does a bee-paper any good to have its readers disgusted and disheartened by such low prices as the commission men have fixed and manipulated for them in the past to be governed by? Do you think a bee-paper is benefited when the low prices of commission men cause its readers to quit the business in disgust, and become non-subscribers? Again, do you think it benefits a bee-paper to publish market reports on honey that no honey-producer would be willing to show to his honey customers? Nor in fact to a honey-producer whom he thinks might be governed by them? Perhaps it has never occurred to you, nor in fact to the proprietors of the bee-papers themselves, that there are many subscribers who refuse to increase their circulation simply because of the market reports of wholesale commission men. In fact I know of many subscribers who keep the bee-papers out of sight of their friends and neighbors, simply for the same reason that many grocers do their trade periodicals. Now this practice would be changed in case the bee-papers contained simply the market reports of honey producers. Then there would be nothing in the bee-papers which the honey-producers would be unwilling to have others see and read.

Now let me call the attention of the readers to some of the benefits the commission men secure by their free advertising in our bee-papers. These standing free advertisements secure them other farm products to sell on commission besides honey. They do not in fact need to expend a dollar in legitimate advertising to get all the farm produce to sell on commission they desire to handle. So, you see, what a nice thing it is for the commission men to get control of a whole column of our bee-papers, free gratis, for nothing!

In view of the foregoing, who now thinks that the bee-papers are really benefited as much as the commission men?

St. Charles, Ills.

For the American Bee Journal.

Ontario Bee-Keepers' Association.

REV. W. F. CLARKE.

The adjourned annual meeting of the above-named body was held in the City Hall, Toronto, Jan. 5 and 6, 1887. The meeting had been adjourned from September last, to give time for the return of the commissioners who had been to England in charge of the display of Canadian honey at the Colonial and Indian Exhibition. The expectation that these gentlemen would be present, and give a report of their doings, was a special attraction of the occasion. Three out of four were on hand, but to the regret of all, Mr. D. A. Jones had been detained in England too long to admit of his arriving in time for the meeting. The others, Messrs. S. T. Pettit, president of the association, S. Corneil, and R. McKnight received the hearty congratulations of their fellow bee-keepers on their safe return.

President Pettit, in the course of his annual address, said: The events of the year 1886 truly mark an epoch in the progress of our association. It has emerged from its chrysalis state to enjoy its higher and better, its fully-fledged legal existence. Through the generous assistance given by the members of this association, your commissioners succeeded in putting on exhibition at the Colonial Exhibition the largest, and perhaps the finest display of honey ever made in the world. The English people of all classes received your commissioners with marked attention, and treated us with the greatest kindness and courtesy. Our brother bee-keepers over in the Mother Country gave us a right royal reception, and vied with each other in making us feel happy and at home during our stay with them.

The President introduced Mr. J. A. Abbott, of Southall, England, son of a noted English bee-keeper. Mr. Abbott, who was warmly greeted, briefly expressed his appreciation of the hearty reception tendered him. Mr. Abbott was elected an honorary member of the association.

A resolution was introduced looking to legislation with a view of exterminating foul brood. Mr. F. Malcolm, Mr. J. B. Hall and others testified to the prevalence of the disease in various quarters, and urged the necessity of vigorous measures being adopted in order to stamp it out.

A memorial from the Oxford Bee-Keepers' Association was presented, asking for action in regard to the matter. There was considerable discussion as to the possibility of enforcing legislation, if it were obtained.

Mr. Abbott, in reply to a question, said there was no law in England in regard to this disease; in fact, there was no legislation on bee-keeping at all.

The resolution was laid on the table, but at a subsequent session was taken up again, and a committee appointed to confer with the government and endeavor to secure a stringent law to suppress foul brood.

Mr. Corneil introduced a resolution asking aid from the public funds to enable the association to invite Mr. Cheshire to pay a visit to this country and deliver lectures on bee-keeping. He said that he had sounded Mr. Cheshire on the subject, and believed he would come if his expenses were guaranteed. He spoke of Mr. Cheshire's eminent ability, and scientific researches, expressing the opinion that no other living man equaled him as an authority on apiculture.

Rev. W. F. Clarke concurred with Mr. Corneil as to Mr. Cheshire's great acquirements, and spoke in the highest terms of his book on bee-keeping. Still he thought there were serious objections to the proposal made. It would be impolitic to ask the government to make a special grant of money for this purpose. They had shown great liberality in connection with the exhibit of Canadian honey in England, which they had aided to the extent of $1,000, and they had promised an annual grant of $500 in aid of this association. We must not keep crying "give, give," or we should be looked upon as greedy and hard to satisfy. We might by asking too much, jeopardize what we had already obtained. By and by, when the fruits of the liberal expenditure made began to be manifest, we might, perhaps, ask for more. With all respect to Mr. Cheshire, he doubted if his lectures would be of much practical value to Canadian bee-keepers. His scientific researches taxed the intellectual capacity of our most advanced bee-keepers, but in the practical work of the apiary, he could teach us very little, from the difference of climate and circumstances between this country and Britain. We would not think of getting English agriculturists or horticulturists to come here and instruct our farmers and gardeners. When any of them settled here, they had to become learners to a large extent. It would be the same with English bee-keepers. It would be wiser to invite some leading United States bee-keepers to come over to our associations, and he believed they would cheerfully do so, if their expenses were paid, and the cost would be much less while the gain would be far greater, than to bring a lecturer all the way from England.

Mr. Abbott conferred in the opinion that British bee-keepers could not instruct their Canadian brethren, owing to the difference between the two countries. After some discussion strongly setting against the project, the resolution was put and negatived by a large majority.

THE ENGLISH EXHIBIT.

The evening session having been devoted to a reception of the commissioners to the Colonial and Indian Exhibition, and the hearing of their reports, Mrs. McKechnie, of Angus, the second vice-president, was, in the absence of first Vice-President Pringle, called to the chair, which she filled with much grace and ability.

Rev. W. F. Clarke, chairman of the reception committee, expressed the sense of obligation which all felt in view of the task these gentlemen had undertaken and fulfilled on behalf of the honey interests of Canada. When their reports were heard he believed all would feel that they had acquitted themselves nobly, and earned the lasting gratitude of all the bee-keepers of this country. This feeling had become so general in advance of their formal report being submitted, that it had been proposed that something should be done in the way of a presentation, or a reception banquet, but difficulities had interposed, rendering anything of this kind impracticable, still he felt sure the commissioners would not consider that their welcome lacked cordiality, or their gratitude sincerity on this account. He understood that no written report had been prepared, but that each gentleman was to give his own individual account of things, and he had no doubt that what they had to say would be heard with the deepest interest. After their addresses, he had a motion to propose on behalf of the reception committee.

President Pettit gave an interesting account of his impressions of the exhibition, particularly in regard to the honey exhibit. He quoted the following notes in regard to honey exhibits from the other Colonies of the Empire:

CAPE COLONY—Two Samples. One good one, and one dark and poor.

GAMBIA, West Africa—One sample. This was granulated at top and bottom, liquid in the centre, and quite dark. It had the flavor of brown sugar, and I think it can never become popular.

VICTORIA, Australia, had some broken sections. Honey dark, thin, and the flavor resembling the juice of baked sweet apples. The sections were well finished, and separators were used.

QUEENSLAND—Honey very thick. About as dark as buckwheat, with one-third clover mixed with it, but more transparent. The flavor was very good, and agreeably pleassnt; unlike anything on exhibition, and might possibly become a dangerous rival to the Ontario product.

QUEBEC had 3 pounds of clover and one of buckwheat.

BRITISH GUIANA—Honey dark and thin, of peculiar but somewhat pleasant flavor. Liquid on top, settled granules to the bottom. Does not set solid. Color, from light to dark, bottom to top. Resembling raw sugar, the lightest colored of which is placed in the bottom, and then a semi-transparent thin honey poured upon it.

The President said there was some fair honey from New Zealand, while that from the West Indies was fair in flavor, but dark. Not one of the honeys he had noted, with the exception, perhaps, of that of Queensland, need be feared as a rival to Canadian honey in the British markets, or the markets of Europe. As people there became educated to light honey, it would take the preference over any other quality. He made no comparison with British honey; it was good, and some people said it was superior to Canadian. If the bee-keepers of Ontario worked together harmoniously and took the greatest pains to send the best honey to the British markets, by degrees Ontario honey would find its way in that country and in Germany, and the bee-keepers of Ontario would have a ready market for all the honey they could produce.

Mr. Corneil said: The experience of the commissioners was that the honey would have been disposed of far more readily if it had been done up in small packages, the large packages being very unsuitable for making an exhibit. When the small packages had been sold, the delegates hunted around London for some small receptacle into which the large tins could be subdivided, and at last they found a small can holding about two ounces. It took five persons some weeks to fill thousands of these cans, which sold like hot cakes to visitors to the exhibition at twopence each.

The Ontario exhibit had been well advertised. The *Pall Mall Gazette* interviewed the delegates, and in this way thousands were led to inquire for the Ontario honey exhibit. As a result of this exhibit, about £930 clear of all the expenses had been handed to Mr. Couse, secretary of the association, for distribution among the Ontario exhibitors, which was a fair Canadian price.

A trip to London quickly took the conceit out of a man, even out of a bee-keeper. The bee-keepers of England knew as much of their business as any other body of men; and they treated the Ontario delegates in a most hospitable manner.

Mr. McKnight said great credit was due to the one lady and the 26 Ontario men who had sent over their honey to England, not knowing what its fate might be; and the thanks of the association were due to the Ontario legislature for the generous grant it had been given. To the Dominion representatives at the Exhibition, Sir Charles Tupper, Mr. Chipman, and the others, the thanks of the association were also due, those gentlemen having rendered the delegates every possible assistance. He ventured to say that no exhibit from Canada had done more to advertise the country than the Ontario exhibit, and he had been told by a prominent English government official that nothing had done more to remove the erroneous impression which prevailed in Great Britain respecting the climate of Canada than this same exhibit. He said that Mr. Cowan, the president of the British association, would visit the Dominion next year, and he hoped every bee-keeper in Canada would show him every courtesy. The greatest care had been exercised to get the honey over in good condition. There were 700 cases altogether, and of these only 12 sections, next to nothing at all, were broken. In the event of any Canadian bee-keeper shipping honey over there in the future, he would advise that comb honey should be exposed as much as possible. The results to Canada from the Colonial Exhibition generally would undoubtedly be great. Ontario, it was acknowledged, had made the best and most sensible exhibit of all. Her apples, cheese and honey had created a tremendous sensation. The two former ranked high in the English market, and before long, he believed the honey would attain just as high a position. It was not an over-estimate to say that 100,000 people must have tasted Ontario honey at the Colonial.

Rev. W. F. Clarke said he regretted that Mr. D. A. Jones, of Beeton, had not yet arrived from England to complete the quartette of encouraging reports. He moved "That the members of the association hail with pleasure the return of their commissioners after the fulfilment of the task which they undertook, and that the thanks of the association were due them for the eminent services they had rendered; that the association expressed its deep sense of obligation to the bee-keeping brethren and sisters of the Old Land for the great courtesy and kindness extended to the Ontario commissioners, and that the association rejoice in the presence among them of Mr. Abbott, a member of the British Bee-Keepers' Association." Adopted.

Mr. Abbott said he would have pleasure in conveying to the British Bee-Keepers' Association the sense of the resolution just passed. He spoke very highly of the Ontario honey exhibit, and said the only honey he had ever seen to compare with it was some sent over from Italy and Switzerland a few years ago. He reminded the association that every year the production of honey was on the increase in Great Britain, and prices were coming down. Ten years ago he could get what was equivalent to 50 cents a pound, now he could only get 14 cents. In order that Canadian honey might compete successfully with English, it would have to be put on the market at a cheaper price than the English, and he believed the Canadian bee-keeper could not fairly expect to get more than 8 cents a pound for extracted.

SECOND DAY.

After some discussion on hives, and queen-excluding honey boards, the report of the Secretary-Treasurer was read and adopted.

Under the Act of Incorporation, which now rules the association, it is ordered that the officers shall be a President, Vice-President, and a Director from each of the thirteen agricultural districts into which the Province of Ontario is divided. Previous to the election it was resolved, that the old constitution be rescinded, and that the asssociation accept and act under the new order of things established by statute. It was found that all the districts were not represented, and a resolution was passed that directors be appointed by so many of the districts as could be filled, and instructions obtained from the government, as to filling the two vacancies that were left.

The following gentlemen were elected officers of the association for the ensuing year: President, S. T. Pettit, Belmont; Vice-President, J. B. Hall, Woodstock; Directors, 3rd District, M. B. Holmes, Delta; 4th, W. C. Wells, Phillipston; 5th, S. Corneil, Lindsay; 6th, Jacob Spence, Toronto; 7th, W. F. Clarke, Guelph; 8th, J. F. Dunn, Ridgeway; 9th, Martin Emigh, Holbrook; 10th, R. McKnight, Owen Sound; 11th, A. G. Willows, Carlingford; 12th, Lewis Travis, Alvinston; 13th, F. H. Macpherson, Beeton; Auditors, G. B. Jones, Toronto, and F. Malcolm, Innerkip.

The meeting decided to make Hon. A. M. Ross commissioner of agriculture of Ontario, and Sir Charles Tupper honorary members of the association, in recognition of their valuable assistance.

It was agreed to ask the directors of the Industrial Exhibition Association to increase and improve the accommodation in the apiary department at the Fair Grounds.

Mr. Malcolm presented an invitation from the Oxford Bee-Keepers' Association to hold the next annual meeting of the association at Woodstock. The invitation was accepted.

The following resolution, moved by Mr. Malcolm at the Wednesday's meeting, was adopted: That a committee be appointed to take steps to secure legislation to stamp out the disease known as foul brood by quarantine or other measures.

The question of taking action in the case of McIntosh *vs.* Harrison was brought up. The action in this case was taken by the plaintiff to compel the defendant to abate a nuisance in the shape of bees kept on his premises. It was decided to take no action, the defendant not being a member of the association, and it being manifest that the lawsuit had grown out of a dispute between neighbors. Mr. J. B. Hall, of Woodstock, who had been cited as a witness in the case, expressed the firm belief that the judges would give a fair decision, when the matter came up for final hearing before a full court.

Mr. David Chalmers read a brief paper on the presence of bee-bread in honey exhibited at the Toronto Industrial. As one of the judges on that occasion, he deemed it his duty to call attention to this matter.

Mr. Hall stated that bee-bread would be found in sections where swarms were hived on "starters" instead of full combs, and the surplus chamber from each colony was transferred to the new swarm. On motion, Mr. Chalmers received thanks for his remarks.

The association then adjourned.

At a meeting of directors held immediately after adjournment, Mr. W. Couse was re-appointed Secretary-Treasurer, in accordance with the statute.

Guelph, Ont.

By Using the Binder made expressly for this Bee Journal, all can have them bound and ready for reference and examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Local Convention Directory.

1887. *Time and place of Meeting.*

Jan. 19, 20.—N. E. Ohio, N. Pa., &c., at Andover, O.
M. E. Mason, Sec., Andover, O.

Feb. 2.—N. E. Michigan, at Bay City, Mich.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Feb. 3.—Wisconsin State, at Madison, Wis.
F. Wilcox, Sec., Mauston, Wis.

Feb. 4.—Fremont Progressive, at Fremont, Mich.
Geo. E. Hilton, Sec., Fremont, Mich.

Feb. 12.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Severe Winter, etc.—E. E. Ewing, Rising Sun,♂ Md., on Jan. 8, 1887, says:

We have had a severe winter here thus far. The cold weather set in a month earlier than usual, and has been pretty steady and severely cold about all the time. Last season was a poor one for honey in all the Middle Atlantic country. There are not many bees kept here except in box-hives. Half of the farmers, perhaps, own from 1 to 5 colonies, which are likely to suffer before spring opens.

Swarming—That "Chip."—W. Z. Hutchinson, of Rogersville,♂ Mich., writes:

There is no man from whose shoulder I should be more delighted to knock a chip than from that of Dr. Miller. In regard to this question of controlling or preventing the desire to swarm, mentioned by the Doctor on page 7, let me ask if the Doctor has read Mr. Simmins' little book on the prevention of swarming. If he has, and knows that Mr. S. is incorrect, why has he not told us so long ago?

Regulating Prices of Honey.—J. A. Bayard, Athens,⊸ Ohio, writes as follows:

The proposition for a combination of honey-producers, to fix the price of honey in the markets of this country, looks like a big contract, when we take into consideration that the business embraces almost an entire continent, with all its varied climate and conflicting interests. An umpire, chosen to take the matter in hand, would find it very difficult to draw the line, so as not to interfere with the export trade, and thereby throw the vast surplus on the home market. If California should rebel by refusing to enter the combination, we should find her low-priced honey competing successfully in all the markets of the country, enjoying a monopoly of the business; while the rest of us would be hanging on to the ragged edge, "waiting for something to turn up." As a merchant in times past, I know what combinations mean, as most manufacturers in certain lines of goods are compelled to combine in order to keep each other restrained within certain limits, under heavy penalties. This plan always worked well in staple goods, and is recognized by business men everywhere. How far the principle would work in the case under advisement, I trust ere long will come to the surface in a movement in the right direction.

Cider-Mills and Bees.—J. Lee Anderson, Lawrence,♂ Ills., writes:

On page 9, Mr. Roebuck says: "Let all bee-keepers circulate petitions for signature, and present them to our legislatures, asking for a law that will compel cider-mill men to screen their mills and dispose of the pomace, so as not to be exposed to the injury of bees," etc. It seems to me that if Smith owns a cider-mill, and the land upon which it stands, that there can be no law made that can compel him to "screen" his mill against Jones' bees that are kept from one to three miles away. But if a law of any kind can be made, it would be one to compel Jones to keep his bees on his own premises. I am not interested in any cider-mill, but I am interested in bees, having nearly 100 colonies, but that does not prevent my using "reason and common-sense," which, on the whole, is about as good law as can be made. Is not that so?

[Class legislation, except in rare cases, is undesirable to the general public, and should be discouraged. We gave no endorsement to the plan proposed by Mr. Roebuck; and only stated that blank petitions were, by law, prohibited from being enclosed in the bee-papers.—Ed.]

My Experience with Bees.—Wm. H. Davis, Cherry Valley,♂ Ills., on Jan. 5, 1887, says:

I knew nothing about bees a year ago. But I obtained 13 colonies in the fall of 1885, and since then I have read "Bees and Honey," and the Bee Journal. I put the bees into the cellar, and in the spring they all came out in good condition. I have increased them to 35 good colonies, and took off 1,600 pounds of comb honey. I received about 200 pounds of black honey, which I sold for 8 cents per pound; the other I graded and sold for 10 and 12½ cents per pound at home.

Good Results.—G. Crouse, Ithaca,⊙ Mich., on Dec., 29, 1886, writes:

We had our first colony in July, 1884, my wife hiving them in a common hive with movable frames. They built 8 frames of comb and stored some honey, and we fed them 5 pounds of granulated sugar. In the fall I put some corn-stalks around the hive, leaving the entrance open so the bees could fly in fair weather. They wintered all right. During the summer of 1885 we increased them to 5 colonies, by dividing them, and got 75 pounds of comb honey. These bees were hybrids. In the fall of 1885 my wife's father gave her a colony of Italians, making in all 6 colonies, which we packed in chaff hives, and left on the summer stands. They all came out in good condition last spring. We now have 13 strong colonies in chaff hives on the summer stands. I have sold 2 colonies at $5 each, and have had 1,190 pounds of surplus comb honey in 1½-pound sections. We have sold nearly all of it in our home market at 12½ cents per pound for light, and 10 cents for dark. My wife worked in her father's apiary two seasons, so we were somewhat acquainted with the habits of the little workers when we commenced. Basswood was nearly a total failure in this locality.

Controlling Swarming, etc.—David Rawhouser, Columbus City,⊸ Iowa, on Jan. 6, 1887, says:

My bees did well last summer. I commenced the honey season with 100 colonies; I now have 160 in my cellar, and they are doing well. I took 8,000 pounds of comb honey last season. I have been looking for the man for years that could step up boldly to knock off such a "chip" as the one now on Dr. Miller's shoulder; but the man always fails to control or prevent the desire for swarming. Mr. Quinby offered $100 for a non-swarming hive. But it has not been forthcoming. It seems that Victor Clough dare not strike at the "chip" now up, either.

Wintering Bees in a Bee-Cellar.—Otto Bussanmas, Bevington,⊙ Iowa, on Jan. 3, 1887, writes:

Last November I built a bee house and cellar purposely for my bees. It is 14x24 feet; a brick floor is in it, and 5-inch tiling lengthwise, entering the floor 4 inches underneath; also a furnace in one end, to heat it if necessary. The cost of the cellar was $250. On Nov. 15 I put 89 colonies into it. I can keep the temperature at 35° without using the furnace. Is it advisable to raise it to 45°? I use cloth and burlap for covers, 3 or 4 thick, and some excelsior in the caps. I use Langstroth hives, leaving the entrances open, and no top-ventilation. So far I have had the temperature in the cellar at 38° to 43°, by using the furnace. Four or 5 colonies were restless, and their hives contained many dead bees on the bottom-boards.

[Yes; use the furnace, and keep the temperature at 45°, Fahr.—Ed.]

The Season of 1886.—Abe Hoke, Union City,⊸ Ind., on Jan. 7, 1887, writes:

I began last spring with 26 colonies. One proved to be queenless, and I gave them brood and they reared a queen and gathered enough honey for winter. I increased my apiary to 37 colonies, by natural swarming. I sold

3 colonies, doubled back one, and put 33 into winter quarters, 15 in straw hives placed in brick cases 4 inches thick, with 15 inches of hay over the top; and 17 colonies in straw hives cased on the outside with ⅜-inch lumber, well painted, and ¾ of an inch space between the straw and the casing. I got about 800 pounds of comb honey, and about 100 pounds of extracted. I have one colony in a 3-comb observatory hive packed in dry sawdust. My bees are all on the summer stands, and I think they have plenty of honey to last until the latter part of March. Good comb honey sells, at wholesale, for 15 cents per pound. The price of honey is too low, and we ought to combine to raise the price. I sold honey 20 years ago at 40 cents per pound, wholesale, and I can now buy as much with 10 cents as I could then with 40 cents. Then I would have had, altogether, 100; now I have 800 pounds as the result of the season's work.

Milk-White Honey.—M. G. Maddock, Marion,⊶ Iowa, asks the following:

Is unadulterated candied honey ever of a milk-white color?

[Yes; we have had pure, linden honey, which, when granulated, appeared very much like lard. Its quality was excellent.—ED.]

Contemptible Conduct.—J. M. A. Miller, Galva,⊸ Ills., writes:

My 50 colonies of bees are all in the cellar, and seem as quiet as on a summer day. I notice that the winter problem has finally largely settled down to cellar wintering, and in my opinion it will so remain. Our honey market was nearly ruined last fall, by men that happened to produce some honey, and then coming to town and selling at the groceries all they could at a nominal figure, and then peddling it all over town; thus not only injuring the market, but destroying the grocery trade that they first sold to. Is not such conduct contemptible?

Wintering Drones—Selling Honey. Allen Latham, Lancaster,⊙ Mass., on Jan. 8, 1887, writes:

Bees seem to be in good condition so far, and bid fair to winter without loss. They have had one flight since the advent of winter (the middle of November, here). That flight was a little before Christmas. We are now having a cold spell, it being 18° to 20° below zero some mornings. When they had their flight I saw drones fly from one hive, thus showing that drones can be wintered. In this hive was a late swarm that became queenless, and reared a queen late in the fall, and, it seems, having kept the drones so long, it concluded to keep them forever. Though as to that, I saw one of the drones giving a free, but not willing, ride to one of the workers. I started the season with 5 colonies, had one given to me, and bought a pound of bees, and with this help I increased my apiary to 16 colonies, besides a small log hive and a glass one for curiosities. I took the glass hive and some honey to the town "cattle show." It attracted much attention, and has helped me to dispose of my honey. I sell my honey at 25 cents per pound for clover, apple, goldenrod and aster honey, and 20 cents per pound for buckwheat honey. I am building up a home trade, and the trade as yet keeps up with my supply. The BEE JOURNAL comes regularly, and I could not well get along without it. Its regularity bears a great contrast to certain other bee-papers.

Bee-Keeping in Arizona.—J. H. Brown, Prescott,⊙ Arizona, on Jan. 7, 1887, says:

I obtained 50 pounds of honey per colony, fall count, and one-half swarm per hive. Our honey is dark, and some of it is strong, but improves with age. Our mixed bees are a terror, and if the Holy Land is like the bees, I do not want to go there. But bees with less energy might not pay at all. I think they go 8 or 10 miles at times for honey.

Results of the Season.—W. F. Roe, Candor,♀ N. Y., on Jan. 7, 1887, writes:

I commenced the season with 60 colonies in 10-frame Langstroth hives, in fair condition. I increased them to 100 colonies, and took 2,000 pounds of comb honey in 1-pound sections, about one-half white and one-half dark, and 500 pounds of extracted honey. I worked some of my neighbor's bees on shares, and got 15 swarms for my share, making me 115 colonies. They are all heavy with natural stores; 65 colonies are in the cellar, and 50 are packed in sawdust on the summer stands. I am selling my honey at 7 cents per pound for extracted, and 8 to 10 cents for comb honey.

Home Market for Honey, etc.—D. Y. Kennady, Batavia,⊸ Iowa, on Jan. 6, 1887, writes:

In the fall of 1885, I had 28 colonies, 18 in chaff hives with tops packed with straw, and 10 in Langstroth hives well packed in straw. On Feb. 16, 1886, I moved them 25 miles on the cars. They all wintered nicely except one late swarm that starved, and I lost 2 in April. I do not know the cause. They left plenty of honey in the hives. That left me 25 colonies in good condition, but, owing to the drouth, one-third of them did not swarm. I increased them to 48, and secured 1,500 pounds of honey in one-pound sections, which I sold for 12½ and 15 cents per section in my home market. It was all sold by Nov. 15, and I could have sold three times that amount at the same price. I hope that I will be able to supply the demand next year. I now have 28 colonies on the summer stands in chaff hives, packed the same as last year; and 20 colonies in the cellar in the Langstroth hive, with two-ply of carpet over them. The cellar ranges in temperature from 36° to 42°. They all seem to be in good condition at this time, and each has from 30 to 50 pounds of natural stores for winter. All that I know about the business I have learned in the AMERICAN BEE JOURNAL in the last two years.

Drones Flying on Christmas.—Col. R. Walton, Industry,⊸ Pa., on Jan. 10, 1887, says:

My bees did very well the past season. I sold all but 15 colonies, and they increased to about 40. I obtained a splendid yield of comb honey, and sold the most of it at home for 20 and 25 cents per pound. It was a remarkable season for nectar. The bees that I had out on shares did better than they have for 6 or 7 years. One or two colonies are carrying their drones through the winter. This is something new to me. They had a flight on Christmas, the drones and young bees flying and roaring as if it were in June. I should like to know if others have ever had such to happen. My bees are in prime condition. Well, Mr. Editor, I would like to enter my protest against taxing bees, and also against bee-legislation.

Selling Honey at Home.—Uriah Stephenson, Gladstone,⊸ Ills., on Dec. 12, 1886, writes:

Eighty colonies, spring count, have produced 7,100 pounds of honey, mostly extracted, and I increased them to 107 colonies. By properly grading it, putting it up in suitable packages, and taking it around, it recommended itself, and I am satisfied that I could sell three times as much if I had it, and at much better prices than commission men can. Talk about there being an over-production of honey—surely there is not as much produced as would be consumed in the country around our apiaries, if we would only go around and present it in proper condition, and not wait for them to come to us. As for those inexperienced bee-keepers, I made my best sales all around them, to their nearest neighbors. I have no fault to find with commission men. Bee-keepers are to blame. If we would go around the country, I affirm that we can sell all our honey, and every year the trade will be better, instead of throwing it all on the commission men's hands, and making it a drug. I have 115 colonies in a good, dry cave, 40x8 feet, and 10 feet high in the centre, with all apertures closed as tightly as I could make them; and while the mercury is far below zero outside, it is at 47° in the cave. I put the bees away in the latter part of November, and I expect to be able to make a good report next spring.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

AMERICAN

ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

BEE JOURNAL

Issued every Wednesday by
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PROPRIETORS,
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At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Market is well supplied with all the grades, and the demand is light. Prices are nominal at 11@12c. for white in 1-lb. sections. Fancy white in scant pound sections, 13c. Very little extracted is being sold, and prices range from 4@7c.

BEESWAX,—22c. R. A. BURNETT,
Dec. 8. 161 South Water St.

NEW YORK.

HONEY.—In consequence of a large stock of comb honey on this market, fancy prices cannot be maintained. Fancy white honey in paper boxes, or glassed, are in better favor here than the unglassed honey, hence the difference in the price. We quote present prices as follows: Fancy white in 1-lb. paper boxes, or glassed, 13c.; same unglassed, 12c., and in 2-lb. glassed sections, 10@11c.; off grades 1 to 2 cts. per lb less. Calif. comb, 8@10c.; fancy buckwheat 1-lbs., 8¾@9c., and 2-lbs. 7½@8c. Extracted white clover, none in the market. Calif. ext'd, 60-lb. cans, 5@6c.; buckwheat, in kegs and barrels, 4@5c.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Dec. 7. 34 Hudson St.

BOSTON.

HONEY.—The demand has improved. We are selling one-pound packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.
Jan. 1. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.
Jan. 10. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—Demand for all kinds has been very slow since Christmas, and occasional concessions have to be made to effect a sale of comb honey. We quote prices for extracted honey, 3@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.

Jan. 11. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—The market is not very active and prices a little lower. Choice 1-lb. sections of best white sell at 13@14c.; second grade 1-lbs., 10@12c.; choice white 2-lbs., 11@12c. Extracted, slow at 6c.

BEESWAX.—Scarce at 25c.
Nov. 17. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—The demand for honey is only moderate and the supply ample, of very fine quality and in extra good order. We quote choice 1-lb. sections of white at 12@13c.; 2-lbs., 11@12c.; dark not wanted. Extracted, white, in barrels, half-barrels and in kegs, 6@6½c.; in tin packages, 6½@7c.; dark, in barrels and ½-barrels, 5@6c.

BEESWAX.—Nominal at 25c.
Dec. 13. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4¾c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

HONEY.—As generally at the beginning of the year, honey is very quiet, but prices are well maintained, in consequence of the continued absence of the needed rains; and although it is too early to say anything regarding the next crop, prospects are not so good as they were last year at this time. Large orders from Europe remain unexecuted, prices being under 4c. here, and owners refusing to sell for less than 4¼c., at which price we quote good to choice honey. Comb honey firm at 8@12c.

BEESWAX.—Active at 18@21c.
Jan. 10. SCHACHT & LEMCKE, 122-124 Davis St.

KANSAS CITY.

HONEY.—The demand is light, and stocks of all grades are large. We quote: White clover 1-lbs., 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3¾@4c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5.; in cans 5@6c. Market dull.

BEESWAX.—Firm at 20½c. for prime.
Dec. 20. D. G. TUTT & CO., Commercial St.

◆

☞ The Fremont Progressive Bee-Keepers' Association will hold its semi-annual meeting in conjunction with the Farmers' Institute, at Fremont, Mich., on Feb. 4, 1887. GEO. E. HILTON, *Sec.*

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Premium Worth Having.—The New York *World* and the AMERICAN BEE JOURNAL (both weekly) will be sent for one year to any address in North America for $2.00. And in addition PRESENT to every such CLUB SUBSCRIBER a "History of the United States," containing 320 pages and 22 fine engravings, bound in leather and gilt.

This "History" will be sent FREE by express at the subscriber's expense; or will be mailed for 10 cents extra to any place in the United States or Canada.

It is arranged chronologically by years, from 1492 to 1885. Every event is narrated in the order of its date. These are not confined, as in other works, to political matters, but embrace every branch of human action.

This premium is worth the whole of the money sent for both periodicals, and should induce thousands to subscribe, and thus get two unrivalled weeklies for nothing.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

All New Subscriptions will begin with the year, and until further notice we will send the back numbers from January 1, unless otherwise ordered.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., 40 cts. ; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen ; if sent by mail, add 1 cent each for postage

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

Our Book Premiums.—To encourage all our present readers to get one or more additional subscribers we will present 25 cents' worth of books for every new subscriber (accompanied with $1 for one year's subscription), sent direct to this office. Thus for five new subscribers with $5, the getter up of a club gets $1.25 in valuable reading matter, to be selected by himself from our list on the second page of this paper. It will pay you to devote a few hours to the interests of the BEE JOURNAL. Every one who keeps bees ought to take it. We will furnish sample copies *free* in any quantity to those who intend to get up clubs. We expect to get 5,000 *new* subscribers for 1887.

◆

The Report of the Indianapolis Convention is now published in pamphlet form, uniform with that of last year. It will be sent postpaid for 25 cents to any address.

We have also bound it up with last year's, together with the History of the Society ; this we will mail for 40 cents. Or if you send us one *new* subscriber (with one dollar) besides your own renewal, we will present you with a copy by mail.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For	50 colonies (120 pages)............	$1 00
"	100 colonies (220 pages)......	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

As a premium to the second largest club we will send my mail, postpaid, a copy of the "Farm Account Book," worth $3. The postage is 20 cents.

◆

We Keep this Notice standing all the year round : "Always give the name of the Postoffice to which your paper is addressed. Your name cannot be found on our list unless this is done," and yet many ask us to change their address without even mentioning to what Postoffice it has heretofore been sent. It often costs us more to find their old address than they pay for the BEE JOURNAL for a year ; as we may have to examine our subscription lists in every State, Province and Territory in North America. Please be more careful in the future, and never omit your name, Postoffice, county and State.

◆

A New Crate to hold one dozen one-pound sections of honey.—It has a strip of glass on each side, to allow the honey to be seen. It is a light and attractive package. As it holds but one tier of sections, no damage from the drippings from an upper tier can occur. We can furnish the material, ready to nail, for 9 cts. per crate. Glass 1¾c. per light, extra.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices : 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

◆

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

◆

Do you Want a Farm Account Book ? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

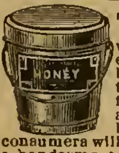
Advertisements.

YOUTH'S COMPANION (new subscriber) and this paper (old or new subscriber), both 1 year for $2.05. Choice **Italian Queen** (to new customers, to advertise my stock), 50 cts.-Regular price 65 cts. Two sittings of **Brown Leghorn Eggs** for $1, and warranted to reach you in good condition, and produce birds that will score from 90 to 95 points. **Clean Alsyke Clover Seed** at $7.50 per bushel. **Small Fruit-Plants** at one-half the usual price.

I can and will furnish any paper in the U. S., at prices that will astonish you. Write for large 20-page Catalogue and Club-List for 1887. Reference given in your own county or town. Orders booked now. **ADDRESS**, BOX 36, Thornhill, Onondaga Co., N. Y.—"Simply this, and nothing more."
3A1t C. M. GOODSPEED, Thorn Hill, N.Y.

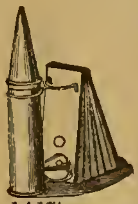
Bee-Keepers' Supplies,
OF ALL KINDS,
ALWAYS ON HAND.
A GREAT REDUCTION IN PRICE. Send for Price List. Cash paid for Beeswax. **A. F. STAUFFER & CO.,**
3Dtf STERLING, ILLS.

NEW ONE-POUND HONEY PAIL.



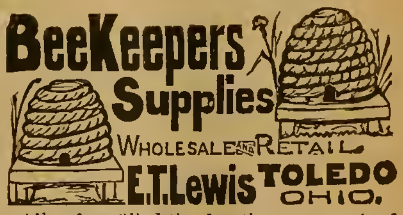
THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.



Bee-Keepers' Supplies
of all kinds kept in stock,
at low rates.
THE QUINBY SMOKER
a specialty.
Send for Illustrated Price-List.
W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.



All orders filled the day they are received, except for bees and queens. 1D6t

VICK'S
FLORAL GUIDE.
If you are in want of SEEDS or anything for the Garden, send 10 cts. for above, which can be deducted from the first order.
JAMES VICK, SEEDSMAN,
ROCHESTER, N. Y.

OUR ILLUSTRATED CATALOGUE
Sent FREE upon application.
THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

ALSIKE & White Clover Seed. Wholesale and Retail.—E. S. Hildemann, Ashippun, Wis.
51-2-5

1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?"

AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them **FREE** my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

1A6t 7D6t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5.

SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—**Humphreys' Medicine Co., 109 Fulton St., N. Y.**

45A12t

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street. Chicago, Ill

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.

BEESWAX.

We pay **20c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

NON-SWARMING BEE-HIVES.

Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Write for Circulars.

VICTOR W. CLOUGH, GENESEO, ILLS.
51A6t

PRIZES!

ARE offered by the Magazine, to the Subscribers who obtain the largest amount of Comb Honey during 1887. Write for particulars. **THE BEE-KEEPERS' MAGAZINE**, 25 cents per Year.

1Atf **BARRYTOWN, N. Y.**

(Mention this JOURNAL.)

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

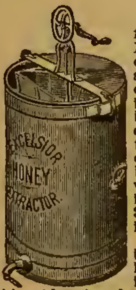
SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,		13x13	inches	...$8 00
For 2 Langstroth	"	10x18	"	.... 8 00
For 3 "	"	10x18	"	.........10 00
For 4 "	"	10x18	"	.........14 00
For 2 frames of any size,		13x20	"	.........12 00
For 3 "	"	13x20	"	.........12 00
For 4 "	"	13x20	"	.........18 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

IMPORTED Italian Queen in full Colony, only $8.00 —O. N. BALDWIN, Clarksville, Mo.
4A1y

Vandervort Foundation Mill.

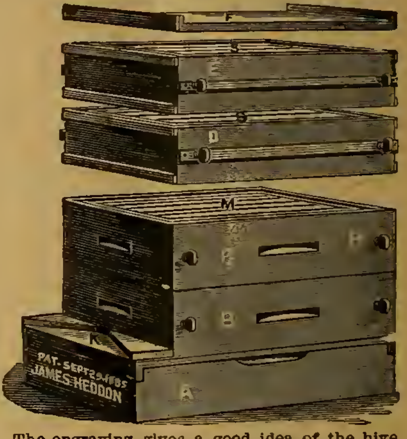
6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

The NEW Heddon Hive.

We have made arrangements with the Inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.



The engraving gives a good idea of the hive. The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00**.

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

SEEDS

Large Garden Guide Free to all. You should have it. Best varieties, all tested, at low prices.

COLE & BRO., Seedsmen, Pella, Ia.

WANTED.—Some one with or without experience, but with some ready cash, to join me in rearing Bees and producing Honey, and to take a half interest in 100, 150, 200, or 250 colonies of bees. My honey crop the past season was 19,000 pounds. Correspondence desired.

M. M. BALDRIDGE,
50C2t ST. CHARLES, ILLS.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Jan. 26, 1887. No. 4.

Mr. Schroder, in Southern Austria, writes us as follows concerning the weather and bees there:

> We had a very fine November, but it was quite rainy during December, though there were some fine, warm days when my bees were on the wing. They flew on Dec. 20, and worked on the *Nespola Japonica.*

◆

Prof. Foster, who predicted last summer that this would be a cold winter, with great fluctuations of temperature, now advises ice men to put up large quantities of ice, as there will be a large demand for it next summer, and the opportunities of gathering ice will not be so favorable the following winter.

That means that a hot summer followed by a mild winter is predicted.

◆

Many of our readers have sent us the names and addresses of their bee-keeping neighbors, to whom we have sent a sample copy of the Bee Journal, so that they may see just what it is doing for them and the apicultural pursuit generally, and give them an opportunity to become regular subscribers. We hope others will feel free to do the same.

◆

Take Time to Think.—This is the best advice we can offer to our readers. Now, while the bees are in their winter repose, plan for the future. It will be money in your pockets to do this. In the morning, when the mind is the clearest, think and decide what you intend to do, and then devise the best method of doing it. Think of what improvements you should make in your apiary, in your bees, and in your bee-pasturage, in your surroundings generally, and then make your plans for accomplishing these improvements. Think of the hives, sections, cases and crates you will need, and then procure them, so that they will be on hand just when needed. This advice would save thousands of dollars every year to bee-keepers, if they would but *heed* it! Read, study, and "post up" on the pursuit, and you will never regret it. If you do this, you will be wiser, happier and richer!

Ruining the Home Market.—L. W. Itzenhouser, of Lakeview, Mich., has no doubt thoughtlessly ruined his home market for honey, by selling fall honey in the comb, after having sold all of his clover and linden crop of honey in that town. It was a very unwise transaction, and we mention it just to warn others from a like fate. Have nothing but the best honey put into the sections, extracting the dark, and sell it for manufacturing purposes, or keep it for feeding to the bees in the spring.

Indignation ran high in that town, and the honey was denounced as an adulteration; it was stated by some that he fed his bees with "black-strap molasses," and had the bees store it in the sections. The buyers were indignant, and said anything that came to their minds, without waiting to know whether it is true or not.

A neighbor, Mr. J. Essinger, came out with an explanatory card, in the Lakeview *Enterprise*, on Dec. 24, in which he stated the following:

> I had a field of red Lancaster wheat that was sown on low ground, and just when the wheat was nicely headed out, we had a frost that injured the heads so that there was but very little wheat in them, and the juice that should have filled out the kernels remained in the stalks; therefore, the stalks remained green, and after the wheat was cut the juice began to ooze out of the stubble, and in a couple of days it turned dark, just about the color of molasses, and it was sweet and sticky, and so abundant that in gathering up the sheaves of wheat, our boots and clothes became perfectly wet and daubed with it. And here comes the secret of the dark, strong honey. There were thousands of Mr. Itzenhouser's bees gathering the juice from the stubble and carrying it home. This I can prove by Mr. Birdlley, Mr. White and Mr. Bassett, who are my neighbors and helped me harvest my wheat. I have eaten some of the dark honey, and think it is the same that was gathered from my wheat field.

Mr. S. J. Youngman, of Cato, Mich., wrote us as follows about this affair on Dec. 27, 1886:

> Mr. L. Itzenhouser, being a large producer of honey, has taken great pains to control the home market at Lakeview, having made nice show-cases to hold his comb honey, while the extracted is offered in cans and other vessels with neat labels. Mr. Itzenhouser put the honey on the market and disposed of it as fast as the busy bees could gather it; first the white clover, then the linden were disposed of, and the customers were thus unsuspiciously led on to tackle the dark honey gathered from the buckwheat and other fall bloom, and perhaps some of the "vile stuff" gathered from the stubble is no better than the honey-dew which troubled us some time ago. The only remedy is to either keep the stuff off the market, or sell it cheaply for just what it is, and thus try and not to be unjustly charged by those not well informed in the mysteries of bee-keeping, of adulteration.

This should be a warning to all—never to allow any fall honey to be put into the sections, or offered for sale after being extracted without fully explaining what it is. We cannot be too careful to maintain a home market after having once created it. Let us hang this red signal out as a warning to all!

◆

"The Outlook of Bee-Keeping in the Future," was the subject of an essay by Mr. A. E. Manum, of Bristol, Vt., at the late convention at Albany. As Mr. Manum is an experienced apiarist, the subject was placed in good hands. From 715 colonies of bees he obtained 30,000 pounds of comb honey, besides 6,000 pounds of extracted honey.

The Good Old Times.—On page 4 will be found a query, why more bees die in winter now than they did 50 years ago. Of course they do not; it is only one of the fallacies of the times; as the replies to the query show most conclusively. The same discontent with the present, and admiration for the past has been exhibited in every generation. The "good times" have always been in the past; and the present have always been the "evil days." An exchange remarks as follows on this subject:

> We are told that more children die now, and that life is shorter. All this is untrue; there has never been, in the history of the world, any time as good as to-day, and life is growing longer. In Geneva, Switzerland, they first kept an account of longevity. In the 16th century the average life was 21 years; in the 17th century, 25 years; in the 18th century, 33 years; from 1801 to 1833, 39 years; from 1814 to 1833, 40 years.
>
> We see that in Geneva in the 16th century, the average age was 21 years, and in the 19th century, 40 years. Fifty years ago, the Life Insurance Company in Philadelphia, used a table in which the expectation was 28 years. The life-table of the United States, calculated in 1860, made it 41 years. At no previous period in the history of the race has sanitary progress approached that of the 19th century.

◆

The Bee-Keepers of Cedar Valley, Iowa, have organized a society, which they have named a "Produce and Supply Union." Its constitution says:

> The objects of the Union are: 1. To provide effective means for the even distribution of honey. 2. To prevent, as far as possible, reckless sales. 3. To find a wider market. 4. To secure higher and more even grades of honey, uniform packages and prices. 5. To purchase supplies (as nearly as practicable) of one house or firm, and thereby obtain lower prices and a uniform grade. 6. This Union is a compact between its members to secure a more ready sale for honey, even, uniform package and wider market, but not a monopoly.

The Secretary is H. E. Hubbard, of La Porte City, Iowa, who will send copies of the constitution and by-laws to all applicants.

◆

Mr. E. C. Jordan, the apiarist of White Sulphur Springs, Va., sent a Christmas present to the Rev. T. DeWitt Talmage, consisting of a Virginia ink-stand and some of the excellent honey of "old Virginia." The Winchester, Va., *Times* says his reply was as follows:

> I received your valued Christmas present, the ink-stand, made out of a cannon of the late war. Many thanks! Surely we must be near the time when the sword shall be turned into a ploughshare, for here we have a gun changed into an ink-stand. I thank you also for the honey that tastes of your bright Virginia fields.

◆

Catalogues for 1887.—Those on our desk are from

G. B. Lewis & Co., Watertown, Wis.—32 pages—Bee-Hives and Sections.

E. Kretchmer, Coburg, Iowa,—32 pages—Bee-Keepers' Supplies.

J. H. Martin, Hartford, N. Y.,—4 pages—Chromo Cards, etc.

A. F. Stauffer & Co., Sterling, Ills.,—12 pages—Hives and Apiarian Supplies.

Cole & Brothers, Pella, Iowa,—40 pages—Flower and Vegetable Seeds.

Plant Seed Co., St. Louis, Mo.—64 pages—Vegetable and Flower Seeds.

James J. H. Gregory, Marblehead, Mass.—56 pages—Vegetable, Flower and Grain Seeds.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Wintering Bees Under a Kitchen.

Query, No. 365.—Where the cellar under the dwelling house is partitioned off in rooms to match the ones above, which room would be the best to winter bees in, the one under the kitchen where a fire is kept all day, and being occupied with the inmates of the house during the day, or the one under the parlor where there is no regular fire kept, only on extra occasions, probably not to exceed a dozen times during the winter? Will the noise in the kitchen, resulting from the daily exercise of the family, be injurious to the bees under such room? If so, would the lining of the cellar-room overhead, with thin lining boards, flooring boards, or plastering, deaden the sound from above so as not to be injurious to the bees below? If it would be, which of the three would be the best? If not, is there any material that could be filled between the two floors that would answer the purpose? If so, what?—A. J., Ohio.

Put them in that part which has the most even temperature. Noise will not injure if there is no jar.—DADANT & SON.

Put the bees under the kitchen. I have no fear from the noise. I have wintered bees perfectly under exactly such conditions.—W. Z. HUTCHINSON.

The room that is freest from dampness and preserves the most even temperature, say from 40° to 50°. Noise will not hurt the bees, but jars and vibrating motions will.—J. P. H. BROWN.

After several such trials I never could ascertain that kitchen noise made any difference with the bees. I would prefer to place the bees in the warmest apartment.—C. W. DAYTON.

Put the bees under the kitchen. Noise without a jar does not injure bees; if they are so arranged that they stand on the ground without touching any part of the wood-work to the house, they will be all right.—G. M. DOOLITTLE.

It will depend upon which will give the nearest to an equable temperature. The noise will probable not affect them unfavorably.—J. E. POND.

I would prefer the room under the parlor in preference to the one under the kitchen. If you use a non-conductor of noise, it will be of heat also. I have several times seen that the noise and jar from rooms above is detrimental to bees.—H. D. CUTTING.

I would put them under where the fire is kept above all the time. I have no fear of noise. A simple floor above is enough. The fire above tends to keep the room below from getting too cold, and can be made to aid ventilation.—A. J. COOK.

It is very hard to be sure about such things, and you will find out better by trying some in each place. Even then, you may not decide correctly, for if one room is full and the other contains only a few, these latter will probably have the advantage. I think that under the kitchen would be the better place, and although the noise may do no harm (I hardly think it will), I should rather have the cellar plastered overhead.—C. C. MILLER.

I know little practically of wintering bees in the cellar, but I am aware that noise does not interrupt bees, and they are not interrupted by slight concussion when closely clustered, if it is not too continuous. Laying a double floor and filling the space between with lime mortar, will deaden the sound and remove all apprehensions on this account. So far as I have seen, this plan practiced in erecting warm buildings the workmen use "poor mortar," that is, add only enough lime to make the mortar sufficiently compact not to crumble.—G. W. DEMAREE.

I should put the bees in that part of the cellar in which the temperature was the most suitable, without regard to the noise made above. As the cold of a room in which no fire is kept affects the temperature of a cellar beneath several degrees, I should line that cellar room overhead in preference to the other. For the space of 3 feet I lined my cellar overhead on the north side, and filled in with the fine shavings made in sawing white poplar. The temperature now varies but little from 41° without a fire, and no moisture can be seen about the hive or cellar. Moisture appears and water will run out of the entrances of the hives at about 36° and below. This was last January. A fire in the cellar made the air sweet and pure, and dried up the moisture.—G. L. TINKER.

If the temperature is always high enough there, I would put the bees under the parlor. If not, I would put them under the kitchen. Disturbance sometimes seems to aggravate the causes of bee-diarrhea, but when the primary cause is not present it does no harm. I have proven this to be true.—JAMES HEDDON.

Put the bees under the kitchen. Bees cannot hear—therefore noise will not disturb them, if there be no jarring. Lining is unnecessary.—THE EDITOR.

Bee-Spaces Between Cases.

Query, No. 366.—In tiering up sections, should a bee-space be left between the cases rather than to have the sections rest on each other?—Catskill.

Most certainly, every time.—A. J. COOK.

A bee-space is left between mine.—C. C. MILLER.

In my practice I want the sections to come together, or as nearly so as practicable. The first and second bee-space is all right.—H. D. CUTTING.

Let the sections rest on each other.—C. W. DAYTON.

There ought to be a bee-space between the tiers of sections.—W. Z. HUTCHINSON.

Not necessarily. A bee-space facilitates rapid handling.—G. L. TINKER.

To my mind such space is unnecessary; but some prefer it.—G. M. DOOLITTLE.

We should prefer to have them rest on each other, if practicable.—DADANT & SON.

The sections are kept cleaner from propolis by allowing them to rest immediately on each other; though I would allow ¼ inch bee-space, and it works well.—J. P. H. BROWN.

This question is a mooted one. As for myself I prefer continuous passage-ways, and the sections come out cleaner and nicer than where a bee-space is allowed.—J. E. POND.

According to my practice, yes. I have tried both ways on a large scale, and I could never "tier up" cases crowded with bees without smashing bees, if there was no bee-space intervening between the cases. My bees enter the cases through the bee-spaces as readily as when no bee-spaces intervene.—G. W. DEMAREE.

Every time, and with the dawn of a little more light, no one will ever think of such a thing as allowing the sections to come nearer together than will allow a bee-space between—JAMES HEDDON.

In tiering up, each method (with and without a bee-space intervening) has its advantages and disadvantages. Where no bee-space is given, the sections are kept cleaner than they are where it is provided. Either plan will be successful.—THE EDITOR.

Raising the Hives in the Cellar.

Query, No. 367.—I have excavated under the house, and put in a furnace to heat my house, and I also have dug a cyclone cellar and put my bees into it. The temperature ranges from 42° to 54°. Now, by raising the hives up nearer the rafters I can increase the temperature as high as 60° or 65°. How would it do about Feb. 1 to raise the hives up so the bees would go to breeding fast?—G. M. G., Minn.

I would not disturb them until they were ready to put out permanently.—J. P. H. BROWN.

Do not go too fast. March 1 will be soon enough in your locality. Are you sure you can raise the temperature 20° by simply raising the hives from the floor toward the ceiling?—H. D. CUTTING.

As the result of two experiments, I think this plan would be advisable. I have more to learn of that method, however. I will be better prepared to answer about next April or May.—C. W. DAYTON.

I should say do not do it. My very best colonies, the past season, were those which did not have a particle of brood, not even eggs, when removed from the cellar at the time elm and soft maple were in bloom.—G. M. DOOLITTLE.

I should not do it. If your bees are in health, just "let well enough alone" until it is time to put them out.—JAMES HEDDON.

You can try it, but I should not on very many. I believe it unwise to raise the temperature in the cellar above 50°, Fahr.—A. J. COOK.

I should prefer to leave them as they are, rather than to risk them in the higher temperature.—J. E. POND.

It cannot do much harm, but we would not do it, for you will probably lose as many bees by restlessness as you will gain by breeding.—DADANT & SON.

I think the plan a good one. Why not raise part of the bees and leave part at the bottom, and then tell us which does the better?—W. Z. HUTCHINSON.

I do not feel at all sure about it, but I should feel afraid to try very many in that way. Try a small number and see how it works, and be sure to report. For one, I should much like to know the outcome. I feel afraid that under ordinary circumstances bees would not be quiet at 60° or 65°, and I think I should rather have them quiet, whether they bred or not.—C. C. MILLER.

If it is desired to keep bees quiet and save their strength and vitality until a time when their activity will be of some account, then the temperature of the cellar should not go above 50°, for the reason that at 50° and above, the bees are always active in the hive. Again, I should not want to force them, if I could, beyond their natural disposition to rear a little brood about Feb. 1. Rearing a great amount of brood in February and March will not be profitable for many reasons. It is the bees that are reared in April and May, and up to the middle of June, that gather the most of our surplus.—G. L. TINKER.

As an experiment, there may be no harm in trying it on a part—and then comparing results. Still we fail to see a good reason for the experiment. They will breed soon enough for all practical purposes without it.—THE EDITOR.

Convention Notices.

☞ The Northeastern Michigan Bee-Keepers' Association will hold its fifth annual meeting on Wednesday, Feb. 2, 1887, in the Common Council Rooms, at Bay City, Mich.

W. Z. HUTCHINSON, *Sec.*

☞ The Fremont Progressive Bee-Keepers' Association will hold its semi-annual meeting in conjunction with the Farmers' Institute, at Fremont, Mich., on Feb. 4, 1887. GEO. E. HILTON, *Sec.*

☞ The next meeting of the Hardin County Bee-Keepers' Association will be held in Eldora, Iowa, on Feb. 12, 1887, at G. W. Ward's office, at 10 a.m. Our monthly meetings are very interesting, and we hope for a large attendance.

J. W. BUCHANAN, *Sec.*

☞ The Wisconsin State Bee-Keepers' Association meets at the Capitol in Madison, Wis., on Thurday, Feb. 3, 1887, at 9 a.m. All progressive bee-keepers are earnestly invited to attend, and supply-dealers are requested to exhibit their best implements and inventions. The State Agricultural convention will be in session at the same time, commencing on Feb. 1 and closing on Feb. 4, which will be an additional inducement for many to attend. Hotel rates are from $1 to $3 per day. Return tickets will very probably be given over the principal railroads at reduced rates.

F. WILCOX, *Sec.*

Correspondence.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⟜ east; ⊸ west; and this ♂ northeast; ⚩ northwest: ⚬ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

The Illinois Central Convention.

The Illinois Central Bee-Keepers' Association met at the Court House in Mt. Sterling, Ills., at 10:30 a.m., on Nov. 24, 1886.

After the usual routine of opening, Mr. J. M. Hambaugh, of Spring, Ills., read the following essay, entitled,

HIVES, FRAMES, AND SECTIONS.

It has been said by a noted apiarist, that "all other things being equal, bees will gather as much honey in a nail-keg as in anything else." While we cannot exactly admit this, it is about as true to state that bees in one of the modern improved hives, with no more attention paid them than was paid to them in the primitive days of our ancestors, would probably yield no better results than the proverbial nail-keg, or ancient logs and straw-skeps. It then follows that to enhance the production of honey, we must not only be equipped with the proper means, in the way of hives and fixtures, but we should also be equipped with a knowledge of how and when to act; the latter being fully as important as the first.

Prior to the invention of the movable-frame hive, bees were a source of mystery, and comparatively little was known of the nature and habits of these wonderful little insects, aside from the "business end," with which all seemed to be familiar. The old methods by which the bees instructed the aborigines in this important branch of their physical anatomy, still remain with them to this day, terrorizing many with the thoughts of so pointed an industry.

It was the inventive genius of Father Langstroth that perfected the work begun by Huber, Munn and others, and brought forth the most progressive and useful of all other inventions in the apicultural world, namely, the first practical movable-frame hive. All honor due to Father Langstroth for this great invention, and his scientific researches as given in his invaluable work, the "Hive and Honey Bee." The invention of the movable-frame hive has been the source of all practical improvements, and has been the key whereby to unlock the mysteries connected with this most wonderful and mechanical little insect.

To thoroughly understand their wants, as regards their dwelling-house and great laboratory, we should be conversant with their nature and habits. We should first understand their wonderful power of reproduction, and their instincts of great strength numerically, during the most important period of their existence—the laboring days of summer—and as the days wane back to the season of their long nap, they again decrease in numbers back to that of probably not over one-third or one-fourth of their prime condition in summer.

To suit these requirements, our hives must be so constructed that we can adapt them to these requirements with the greatest possible ease and dispatch. They must be so arranged that we can contract or expand the brood-chamber at our wish. Our brood-frames should all be of exact dimensions, cut by machinery, and be interchangeable with all the hives throughout the entire bee-yard; likewise should all hive-bodies, supers, covers, stands, etc., be of exact dimensions, and interchangeable. In my estimation the chief and most important item for first consideration is the adopting of the brood-frame, after which all other requirements must be made to suit.

In the consideration of the brood-frame, we must cater to the natural instincts of the queen as regards her power of reproduction. We should give her every resource whereby she will be enabled to ply her vocation uninterrupted, and in accordance with laws governing her nature. We should work for the bees as the most essential requisite, for with our hives literally boiling over with bees, the season permitting we can rest assured of the harvest.

In this consideration, take a peep at the bees in their abode, when left to "their own sweet will" in the construction of their combs and brood-chamber. Having transferred many colonies from box-hives and old fashioned "bee-gums," I have taken pains to notice how the bees prepare the combs for the reception of the brood, and how the queen proceeds in her avocation of egg-laying, when left to her own will. It is evident that deep combs, with brood beneath the stores, is in accordance with their laws, and if any one will examine the brood-nest in early spring, he will find near the centre of each a small patch of sealed brood in the centre of two or three of the combs, from the size of a silver dollar to that of a hand, and immediately around this will be found larvæ in various stages of development, and on the outside of all, freshly laid eggs; this is conclusive evidence that the queen directs her movements in a circle, commencing in the centre of the comb, as near as the nature of circumstances will admit. This leads to the conclusion that the brood-frames should be made large and roomy, if we desire to obtain the best results numerically from the queen.

We should have the combs large and uninterrupted with horizontal bars and bee-spaces through the centre of the brood-nest. I believe them to be a detriment to the strength of the colony, as the queen is bound to lose time in her onward march from cell to cell, when she is confronted with these bars and spaces, and thrown out of her natural path. I do not believe that a hive is perfect in its construction, that will not give the queen full power of reproduction as nature has endowed her. When this very important item has been accomplished, we must also be prepared to meet the needs of the most populous colonies, by giving plenty of room at home, and not allowing them to vacate for the want of room.

We will suppose that it is on the eve of the honey flow, with the hives boiling over with bees, and young ones hatching by the thousands daily. We must now look to the surplus department, which every wide-awake apiarist has in readiness for the harvest. We must be prepared to have it gathered in the most marketable shape in comb form. To do this, we must cater to the wants of the markets, and see how the consumers desire their honey prepared, and what style of package receives the most ready sales; by consulting the markets we see quotations are given in comb form put up in one and two pound sections, and occasionally in one-half pound sections, but it is generally conceded that the one and two pound sections are the standards, and hence the proper size for the markets; other sizes do not meet with general favor, hence the need of adopting these sizes.

As it is an essential point to have all of our comb honey put in nice, marketable shape, a word or two upon this subject will not be out of place. I would have the surplus receptacles easy of access, and so made that if the strength of the colony demands, we can use one, two, or as many tiers as we please, and as fast as the sections are completed and fully sealed, they can be easily and quickly removed, and empty ones given in their place. I would have each and every section as it is taken, built in a manner that will be marketable, and admit of crating for shipment. This important item has led to many devices, whereby we might accomplish this end, chief among which is the use of separators.

This seems to come nearer accomplishing the object than any other method, yet it has its opponents on the ground that the separator is objectionable to the bees. They are more reluctant to enter the sections, and will not gather as much honey with their use as they will without. The separator also takes up valuable room, making two bee-spaces between each row of sections, where one bee-space will accomplish the purpose without separators. To do away with them, some use full sheets of comb foundation in the sections, and claim a success; while others claim that more than starters in the sections is a detriment to the honey, causing a centre lining that destroys the finer melting properties to the taste, thereby damaging the market value.

Another method by which the sections may be nice and evenly drawn out, without the use of separators, as advocated and practiced by some, is by giving the bees ready access to the sections from all four sides of the sections, having bee-spaces at the sides as well as the top and bottom; but, as the "proof of the pudding is in the eating thereof," we must await future developments, and should we succeed in getting our surplus honey in proper shape without their use, we shall have accomplished quite an item.

Viewing the subject from a financial stand-point, our hives should be constructed on the principle of accomplishing the greatest results with the least outlay of money and time. They should be of as few parts as possible, and so simple of construction that they can be operated by the novice. Should we adopt one-half of the devices suggested by the bee-fraternity at large, especially for the production of comb honey, we should shortly have a veritable curiosity shop; hence, to sum up, I will say that we should adopt large brood-frames to insure the very best results numerically, and a hive that will accommodate ten frames, or contracted by the use of division-boards to any number less. The surplus department must also be as easily expanded or contracted to suit the strength of the colony, and harvest the surplus in the very best shape for market in one and two pound sections.

I have found from practical experience that the wintering of bees on large combs has been much more successful than on small ones, under the same form of treatment in out-door wintering, coming through to spring stronger in numbers, building up more rapidly, and in much finer condition to meet the clover harvest.

The foregoing ideas that I have been free to express, have come through no solicitations from others, for certainly I have no "ax to grind," but are my individual ideas, gained from four years of experience in the production of honey by modern improved methods. If I am wrong in any of my ideas, I will thank any one to set me straight, and will cheerfully stand correction. We live to learn, and let us live conscious of the fact that we can never attain to so high a standard of perfection but that we can be taught something from our fellow-man.

W. T. F. Petty said it was well to disturb the queen a little to the convenience of the apiarist, even if it should prove that the colonies should not be quite as strong numerically, which he doubted.

Mr. Camm asked the dimensions of the frame that he (Mr. Petty) uses, to which Mr. P. replied, 18 1-6x4¾ inches, with closed ends, and frames spaced 1⅓ inches from centre to centre. His hives are interchangeable, using one, two or three sectional brood-chambers.

To a question as to the way of removing the frames, should the bees glue them, Mr. Petty answered by asking the reason for removing them. Mr. Wallace considered it essential for removing and introducing queens, etc. Mr. Petty claimed that he could find a queen in a sectional hive in one-fourth the time that others could in the large frame hives, by blowing a little smoke in at the entrance, when the queen would soon appear on top of the frames, where she could be easily captured. Mr. Petty uses wedges in place of set-screws; Mr. Black said that set-screws were essential to overcome swelling and shrinkage caused by variable weather. Mr. Petty said that tight, secure lids would avoid this difficulty.

Mr. Camm said that he did not disturd and handle bees as much as he used to; he had hives in which some of the combs had not been disturbed for years. He did not favor large combs as much as he used to, and he believed in interchangeable frames, thus being able to take drone comb from the brood-nest, and put above, etc. He prefers for general use a frame 12 inches long by 10 inches in depth.

Mr. Hambaugh considered it necessary to have all combs readily movable and interchangeable. It was essentially necessary in the spring in spreading brood, building up weak colonies, etc. He believed that strong colonies were the prime factor in honey production, and that we should labor to that end, and large combs were an advantage over small ones in this respect.

AFTERNOON SESSION.

President Camm, in his annual address, spoke at length of the magnitude of bee-keeping; of its growing importance as an industry; the sale of comb foundation the past season, of but one firm, aggregated 53,000 pounds, which was sufficient evidence of the magnitude of the business. He spoke of the necessity of finding a market for our product, and favored the idea of a union of bee-keepers with uniformity of prices, and placing a salesman upon the road to sell our product by sample. He said that the bee-keepers had no time from home duties to go upon the road. He spoke of the great necessity of putting our honey up in the most attractive shapes, etc.

THE USE OF SEPARATORS.

Mr. Petty said that he had used sections with full sheets of foundation, but the results were unsatisfactory. Some of the sections were bulged, while others were not fully drawn out. He had trouble with the salesmen, by their not being easily removed from the crate. Since using separators he saw no perceptible difference in production, while the honey was in far better shape for the market. He wanted, when his name was attached to a section of honey, for it to stand on its merits. He uses broad frames with wooden separators attached thereto.

Mr. Cullinan considered separators a detriment, especially tin, as heat in a cluster was necessary to the secretion of wax, and tin is a non-conductor of heat. He thought a great deal depended upon having the hives level.

Mr. Hambaugh said that anything put in the hive that would drive out the heat was detrimental to honey production; that it was better to put up with some little inconveniences. The bulged and imperfect sections could be sold in the home market, and used upon our own daily tables, and the ones more perfect could be crated for markets at a distance. We cannot very easily afford a shortage, when the per cent. of imperfect ones are not too great. He believed that separators, especially tin, were a detriment to honey production.

Mr. Camm said, in looking over a large number of his sections, that it was difficult to tell which was top or bottom, and whether separators had been used or not. He considered that he got as much honey suitable for market without separators, and combs more securely fastened at the bottom. Mr. Petty said that bees did not start so many sections at once where separators were used, and left fewer incomplete ones. Mr. Hambaugh asked if bees would start as quickly with only starters in the sections, as they would where full sheets were used, and if as much honey would be obtained from the former as from the latter.

Mr. Camm said that consumers would educate themselves as to what was best in comb honey, sooner than bee-keepers would educate themselves to supply that which is best. He thought that the "fish-bone" could easily be detected and worked against the honey-trade. He said that it was not the most honey that we were working for, but the most *money*.

Mr. Petty said that if the apiarist would label his honey that was drawn out on full sheets of foundation, and also that which was made from starters only, he would find that the honey built on starters would take the best.

"How can we keep the bee-yard clean of weeds?" was asked.

Mr. Cooper said he believed the lawn-mower the best. He had used sawdust, but found it blew around a great deal, making it unpleasant.

Mr. Hambaugh had found from experience that where chickens were allowed to run in the apiary they would make ugly work, especially in the morning, by scratching and throwing full the entrances to the bee-hives, making considerable work and no little annoyance. Besides, he had met with several narrow escapes from fire by sparks catching from the smoker, and concluded to do away with the sawdust under his hives. He laid his apiary off facing the southeast, and then set dwarf fruit of various kinds, 8 by 10 feet apart. He then made a small mound for each hive to rest upon, from old bleached ashes that had been used for soap-making, so that a fruit-tree would stand at the southwest corner of each hive. He had not yet used the lawn-mower, but thought that he would by another year, as he believed this about the most satisfactory plan.

"Is shade a benefit to the bees?" was then asked.

Mr. Petty said that the bees would be better off without it, and that they should be in open territory, with lots of ventilation.

Mr. Camm said that bees should have shade in the heat of the season, to prevent the combs breaking down.

"Will it do to move bees about the middle of November?" Mr. Camm replied, "Yes, provided they can have a flight right away." Mr. Petty said that there was nothing in the gorging idea, and that he would not hesitate to put them into the cellar for winter immediately on arrival.

Mr. Cooper then suggested the idea of raising wrens, as they were a benefit in eating worms, moth, etc. Mr. Camm agreed with Mr. Cooper.

"How do you sulphur honey so as to keep it free from moth?"

Mr. Petty said that he had but little trouble with moth; he crated his honey as soon as taken from the hive, and had noticed that when honey was paced in a dark room, moth would collect. He advised fumigating with sulphur, the fumigator to be at the top of the comb.

Mr. Hambaugh advised putting in a close room impervious to moth millers.

"What should be the difference of price between comb and extracted honey?"

Mr. Wallace said that 150 pounds of extracted honey could be obtained as easily as 50 pounds of comb honey.

Mr. Camm said that he considered 8 cents per pound for extracted better than 12½ cents for comb honey. He could get 150 pounds of extracted to 100 pounds of comb.

Mr. Petty said that he sold comb honey at 15 cents per pound, and extracted at 8 cents; he thought that he could make as much at one as the other.

"Will honey keep that has been extracted from well-ripened sections, and sealed in air-tight vessels?

Mr. Hambaugh stated that he had never tried the plan. He had extracted as often as every seven days, with no bad results; his honey was put in barrels and placed in the cellar. He thought that the results would have been larger had he extracted oftener.

Mr. Camm had seen honey in the hands of dealers, that had soured. He thought it was on account of its being placed in a damp cellar. He considered a damp cellar the worst place in which honey could be placed.

Mr. Petty had noticed signs of fermentation from what he considered the best of honey when placed in air-tight glass jars.

"Is a bee-space between the tops of the brood-frames and the supers of any advantage?"

Mr. Black said that it was an advantage. He had tried putting sections directly on the frames, and did not want any more.

Mr. Cooper had tried the same, and did not like it. He left a ¼-inch bee-space between the honey-board and sections.

Mr. Petty said that the difficulty of brace-combs could be obviated by making the bee-space ¼ of an inch instead of ⅜ of an inch. Mr. Camm confirmed Mr. Petty's statement.

Mr. Petty said that he had done away with the slotted honey-board, and that one bee-space was all-sufficient.

Mr. Hambaugh stated that bees in their natural state built their combs straight, with no obstructions, making continuous passage-ways from bottom to top, and considered it a vital point to construct hives with continuous passage-ways as near as possible.

"Are side passage-ways in sections and supers of any advantage?" Mr. Camm replied that he had tried this plan, and believed there was an advantage. Bees seemed to attach the section all around in better shape.

The convention then adjourned till 9 a.m. on the following day.

THURSDAY SESSIONS.

The convention assembled at 9:30 a.m., when President Camm read an essay on "The Different Races of Bees."

His experience had extended to Syrians and Cyprians. The Syrians he thought were inclined to breed up too late. They came through winter in fair condition, built up very fast, brought in honey like water, but the cappings seemed to lay directly on the honey, presenting a greasy appearance. They were very irritable if the combs were disturbed, but easily subdued with smoke; also very nervous and fidgety when being handled. They invariably crossed with blacks, and the crosses were no better, if as good, as the pure bloods. He would not have Cyprians. He could not subdue them with smoke. They are vicious and cross. They are good honey gatherers, and for rearing queens, as he could get one-half dozen queens from one frame. They swarmed later than any other bees, but made up for the lost time. The queens had a trait of flying when being handled.

Mr. W. J. Cullinan, of Mt. Sterling, then read the following essay on

MARKETING HONEY.

I shall not attempt a complete and exhaustive treatise upon this subject, but merely outlining its principle features, leave them to be drawn out and rounded up by those whose riper experience in the matter will give to their utterances greater weight, and make them of much more value to the listener.

It is with pleasure that we view the rapid advancement that is being made in the science of apiculture, the vast improvement in methods of manipulations of hives and frames, as well as the breeding of the bee itself; while gazing on this pleasing picture we cannot shut our eyes to the fact that honey has not as yet been given its rightful place among the commercial products of the world. And why, we ask, is this thus? It is because, in the great struggle that has been made to attain pre-eminence in the breeding of bees and the production of honey, we have, in a very marked degree, lost sight of that equally important concomitant of the business, viz: The profitable disposition of the article which we produce.

That we have learned the art of producing honey is amply attested by the millions of pounds now annually thrown upon the markets of the world; that we have *not* learned to dispose of the same in an advantageous and profitable manner, the over-crowded and constantly glutted state of those markets proclaims in thunder tones.

Some cry over-production! To such I would say that there is no over-production, nor is there likely to be, if we but educate the people to its use as we produce it.

The practice of forcing honey in large consignments upon the commission men and dealers of the great trade-centres of the country, is doing more to break down prices and ruin the business of the apiarist than anything I know of in the category of evils to-day. And so wide-spread and general has this mania become that prominent commission merchants are advertising that they will not receive consignments of honey without previous arrangement with the owners. Prices quoted in the over-glutted markets of New York, Boston and Philadelphia become the standard for Cincinnati, Toledo and Chicago—in fact, the *whole country*—and the demand ever unequal to the supply, the tendency is always downward. And so it seems that if this state of things continues, the bee-keepers must be content to work for a very small profit in the future.

I have a remedy for this much-to-be-deplored state of affairs, and it is contained in one short sentence, viz: "Work up your home market!" These few words contain volumes; they are the key to the whole problem, and if acted upon they will work miracles toward keeping up the price of honey and creating a demand therefor. The secret lies in keeping the honey out of the hands of commission men, out of the large cities, and bringing into actual contact with the consumers in the country.

Having lost its rightful prestige through the folly and neglect of our ancestors, it remains for us by persistent endeavor in wise methods to restore it to its proper place in the commerce of to-day. Consumers having long since learned to exclude it from their every-day list of edibles, and regard it as a luxury to be indulged in only on rare occasions, no longer run after honey as they would after meat, flour and other staples, and consequently we must run after them and solicit their patronage if we would market our product.

Had I a large crop of honey to dispose of, I would start out and canvass the surrounding country, taking in as much territory as the amount of my crop would warrant. I would have my honey in attractive shape, my comb honey in one and two pound sections, extracted in one, two and three pound glass jars, ten-pound tin pails, and fifty-pound kegs. I would stop at every house, show them what I had, explain its merits, and I would *make sales*. In a month or so I would canvass the same territory again, and so continue till all was sold.

In placing honey in the hands of dealers, I should select such as understood its merits best, and could best explain them to his customers, and would push its sale; those who leave it to sell itself are not the proper persons to handle honey.

Dr. J. P. H. Brown, of Augusta, Ga., in an essay read before the Texas convention in 1883, and published in the AMERICAN BEE JOURNAL for that year, truthfully said: "Not one grocery merchant in fifty knows how to handle honey. The expert salesman, like the expert producer, must have a natural fitness for the business. When a merchant is willing to undertake it, and displays the necessary tact and ability to introduce the commodity to his customers, the bee-keepers of the neighborhood should sustain him; because there would be a likelihood of his being better able to keep up the price and extend the sales, than if it was put in the hands of half-a-dozen grocerymen of the town to sell at all sorts of prices, and to be offered in all sorts of shapes." I presume all can verify the truth of these remarks, which are as applicable here as in Georgia.

Honey placed in the hands of dealers to be disposed of, should always be in the most attractive shape possible. The day is past when honey can be sent to market in uncouth shape, and command a paying price. Wherever progressive specialists have planted themselves in a community, loose comb honey defiled by bee-bread and dead bees, is no longer considered "a dish fit to set before the gods;" and must, in the near future, together with the log-gum and box-hive, join the silent army of the things that were.

I have found comb honey to sell well here in the one and two pound sections, the one-pound being preferable. I do not think a smaller section would sell to any extent in towns of this size. Extracted honey I have found to take best in pint and quart Mason jars. Larger packages do not seem to sell well in the stores, but in soliciting orders I have sold considerable in 10-pound and still larger lots.

As to the time of selling, I would advise to begin as soon as customers can be obtained, but not to *push* its sale early in the season. The demand for honey is never very great until the advent of cool weather. There is always a lull in the honey-trade at the time new sorghum comes into market, but this lasts but a few weeks, and the honey-trade goes on again.

In conclusion I would say, bide your time; be in no hurry; show no disposition to sacrifice your product, and, my word for it, you will be able to dispose of the same in due season, and at remunerative prices.

These, in brief, are my methods. If any one has other or better methods, or can improve upon those which I have given, I shall be glad to hear them.

Mr. Hambaugh had found from personal experience that the small producers were the ones that ruined the markets. Grocerymen were inclined to place their own price on the honey of unposted producers, who would accept the price rather than return home with their honey.

Mr. Middleton said that he had no trouble in selling honey in Jacksonville markets. He had never got less than 15 cents per pound for comb honey.

The convention adjourned until 1:30 p.m., when it was again called to order.

It was decided that Mr. Middleton should mail to each member of the society, packages of white California sage seed, now in his possession, at the expense of the society.

The subject of uniting the two societies in one—the "Illinois Central" and the "Pike County Association"—was then discussed, and the idea met with favor. It was unaminously decided to retain the present officers, and meet with the Pike County Association at their next annual meeting, for the purpose of uniting with the same, the name to be changed to the "Western Illinois Bee-Keepers' Association," or some other equally appropriate name.

Mr. Petty then related his experience of the past in wintering bees, being largely in favor of cellar wintering. He stated that he had weighed his colonies when put into the cellar and when taken out, and the consumption of honey would aggregate about 6 pounds. He had not lost a colony of bees in five years, but had lost a few weak nuclei through neglect.

In regard to a question from Mr. Camm concerning Alsike clover, Mr. Cooper said that it was preferable to the red for hay; it was not so dusty, and kept much better in the mow. He would sow no more red clover when he can get Alsike. His neighbors sowed it and were well pleased with it.

Is pollen in the combs a detriment to bees in confinement?" Mr. Petty said it was not of sufficient detriment to pay for removing it. Mr. Hambaugh said under certain circumstances that it was, such as during long confinement and continuous cold, with no relief by cleansing flight. Mr. Camm thought if the pollen was kept from souring, it would not injure them, and that sour honey was as conducive to disease as pollen.

"Would you extract honey from the brood-chamber during a honey flow?" Mr. Hambaugh said that he would not, unless it was necessary to give the queen laying-room.

"Will it do to feed dry sugar to bees in confinement?" Mr. Camm said, "yes," if it was Porto Rico, a soft sugar.

The convention then adjourned, to meet as stated above.

J. M. HAMBAUGH, *Sec.*

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

For the American Bee Journal.

Glassed and Unglassed Honey Sections.

C. M. CRANDALL.

The market quotation from Kansas City, Mo., casts reflections on what the commission firm terms "home bee-keepers." I am so fortunate as to be one of the "home bee-keepers" referred to, and had a good percentage of that 70,000 pounds of honey that was said to be kept out of the Kansas City market until late. The assertion that the "home bee-keepers" held their honey till about Dec. 1, or until that report was made, was untrue. I have had honey in the Kansas City market every hour since July 1, 1886; I also had glassed and unglassed, side by side, in not less than three commission houses; and so have Messrs. L. W., A. A. and P. Baldwin, J. H. Jones, C. K. Ormsby, A. R. Matthews, John Conser, and others. More than 60 per cent. of our crop sold by Oct. 15, and fully 90 per cent. of it was glassed; but it was not as bad a case of "glassing" as the commission firm would have the vast army of intelligent readers believe.

They say that 160 pounds of honey has 60 pounds of glass on it; while the truth is that when we glass both sides there is less than 36 pounds of glass on 160 pounds of honey. While they have been selling honey consigned to them for 11 to 13 cents per pound unglassed, the "home bee-keepers" have been selling their honey (not a whit better) through other commission houses for 14 and 15 cents per pound, and both sides glassed.

While the commission firm in question has been fighting glassed honey, and denouncing it as a fraud, our customers have demanded glassed honey, and if that commission firm would read the BEE JOURNAL they would see in the New York quotations glassed honey quoted at 1 cent per pound higher than unglassed, and that, too, in a market where 70,000 pounds would cut a small figure.

I will say for the benefit of all commission firms, that as long as our customers demand honey glassed, the "home bee-keepers" will furnish it, and they will not "hold back till late," and then throw it on the market and reduce the prices, but will do as we did this year, and for the last twelve years, namely, stock the Kansas City market early in July, and try to keep the honey market up, and not try to run it down, as that commission house has tried to do for the last two years. If they had staid with the "home bee-keepers" and held the market up, we could have obtained 15 cents for our "home bee-keepers'" 70,000 pounds, as well as the hundreds of thousands of pounds shipped to Kansas City from other points.

In conclusion I wish to say this to bee-keepers who ship honey to the Kansas City market: When you send a fine article, limit the commission merchant to some price. I have seen thousands of pounds of honey in Kansas City shipped from Iowa, Wisconsin, Michigan, Illinois and other points—as nice an article and in as fine condition as any—sent here without a price set on it, and I have seen that honey sold this year for 11 cents per pound, when, if we had all held for 14 or 15 cents, it would have brought that. The bee-keepers of western Missouri and eastern Kansas have always tried to hold the market up, and have always succeeded, until honey from other points was thrown on the market and sold at the first offer.

Independence, Mo.

[This illustrates one of the evils complained of concerning the "Honey Market Reports." It is one that never should have existed—that of wedging *free advertising* into market quotations. Hereafter we shall omit all such matter, and confine the reports to the figures without remarks, except to express the state of the market—such as active, dull, lively, quiet, etc. We hope that all other bee-periodicals will do likewise; and thus do away with *one* abuse of the privileges heretofore granted.—ED.]

For the American Bee Journal.

Legislation for Bee-Keepers.

J. E. POND.

The question of priority of location of an apiary is one on which my views are so well known, that I need not, neither do I care, to discuss it; but the question of legislation on that subject is one on which more light is needed, and for that reason may well have a small share of attention.

Special legislation has at all times, in civilized nations, been a matter of serious thought, and one that has been severely criticised. It is simply making laws for the protection of a certain class against all others, and as a consequence the means of creating monopolies. The importance and gravity of the question is such, that only for the strongest possible logical reasons, or perhaps (unfortunately) for the bribe of a large sum of money, has any special law affecting the relations of business ever been passed.

So far as apiculture is concerned, the Congress of the United States has no power to legislate in the matter; each and every State alone having the right under the federal compact to make laws that will govern or control. Now the question arises, can any State make any law whatever, that will give any one man more rights than another to keep bees in a certain locality, that will work fairly and impartially? If so, what? In the first place, bees are foragers, and do not confine their predatory visits to any given field; neither can they be so confined; hence the illustration of breeders on the plains has no force here.

Originally, society in a crude state had no boundaries; there was land enough for all. Soon, however, increase of population made such boundaries necessary, and the land tenure obtained. Apply this to bees: If a certain man owns all the land for a radius of five or six miles from a given centre, and keeps his bees at that centre, he may well claim that no one else shall keep a colony on his land; but how about the case, should he place his apiary directly on the boundary between himself and his neighbor? Again, suppose the neighbor owns all the land save one-fourth of an acre; can any equitable law be framed that would say the owner of the one-fourth of an acre may keep bees, while the owner of the rest of a large township shall keep none?

In my opinion, the whole question resolves itself to this: Bee-keeping, like every other occupation, should be governed by the same general laws, competition alone being allowed to control. The man who is the best qualified by study and experience, and who by the application of his mental powers can produce honey the cheapest, will be the winner in the race. In other words, the "survival of the fittest" is the only law that can be made that will prove just and equitable.

If the state of things were such that a certain person was obliged by law to keep bees, then perhaps equitable laws could be framed to protect him; but so long as we all in common have the legal right to labor in a certain field or not, the choice being our own, it certainly is cowardly on our part to ask for any protection that is not given equally to any other branch of business. As a lawyer, I might as well ask that no bee-specialist should attempt to occupy my field, as for him to ask that I should not be allowed to keep bees, simply on the question of priority.

Foxboro, Mass.

For the American Bee Journal.

Disturbing Bees in Winter.

P. M. PUHL.

In regard to disturbing bees in winter, my experience has been the reverse of Dr. Mason's, as described on page 8. In November, 1883, I put 149 colonies into a cellar under a kitchen, the hives being placed 5 tiers high, about 3 inches from the ceiling. The kitchen was 15x23 feet, and was the children's play-room, when not in use. When they were in it, I would go into the cellar to hear what effect it would have on the bees, and it seemed like being in a boiler-shop with all hands at work. I would give the children a signal to stop playing, so I could hear if it bothered the bees. But they were as still as could be.

I swept the floor once a week, and five times during the winter I scraped the dead bees from the bottom-boards with a wire hook. I had one colony that I could get at conveniently, and I uncovered it every time that I went into the cellar; at least a dozen times I took out combs to see what they were doing.

On April 14, 1884, I took out of the cellar 148 colonies, and I never before, nor since, have had bees so strong and sweet in the spring, and they consumed very little honey. Some colonies had natural stores, some sugar, some part sugar and honey, and about a dozen had plenty of bee-bread, but I could not distinguish a particle of difference. The one that died had not stores enough, and was about in the centre of the tier of hives. I swept up a trifle over 3 bushels of dead bees, from November, 1883, to April 14, 1884.

I have been in about fifteen bee-cellars, and I never yet discovered that outside noise disturbed bees. I hope that no one will misunderstand me, and think that one can go into the cellar and kick or handle the hives much as he pleases, without injury to the bees, for I believe in keeping everything as quiet as possible; but not as quiet as a bee-keeper thinks who came to see me a few days ago. While in the cellar talking to him about the bees, he stopped me and whispered, "Don't speak so loud; you will disturb your bees." I do not believe that any outside noise whatever will disturb bees in a cellar, as long as the floor upon which the hives stand, or the walls which they accidently touch, are not jarred.

South Toledo,→○ Ohio.

For the American Bee Journal.

The Honey-Producers' Association.

DR. G. L. TINKER.

The editor's advice on page 723 of the BEE JOURNAL for 1886, is the same that I have followed for years in selling my crop of comb honey. At present my honey is selling in this place on a commission of only 10 per cent. I find that there is no hesitation anywhere to taking it on 15 per cent., and I think that is what it should be. There are many reasons why we should pay the retailer well. I am with our solicitous and unselfish editor of the BEE JOURNAL and Mr. Baldridge in this matter, heart and soul, and I hope immediate action will be taken by honey-producers, to stem the course of commission men in forcing down the price of honey in our leading markets. Our merchants and grocerymen in the small towns and cities are guided by these low market reports in making all purchases.

Farmers and others who have small amounts of honey to sell, are compelled to almost give it away; some refusing the low prices offered, go about trying to sell direct to consumers, and the latter opine directly that there is no sale for the article in the market at the price asked, and the result is that it goes a-begging at a price below the cost of production. All this is traceable directly to the low market reports of commission men. But the fact that comb honey has sold here on our streets at 8 and 10 cents per pound, has not prevented me from selling my honey readily at 18 cents per pound. I believe that it would sell for more if it was not for the discouraging, reports complained of.

If I had more honey than I could dispose of at home, I would ship it to large towns and cities, and place it myself in the hands of retailers on commission, and keep out the middle men entirely. Such a course on the part of producers would soon change the tenor of our market reports. At all events I would fix my own price for honey, and in no case let a middle man do it for me.

I have proved this course to be a practical one, and I hope all will approve of the course suggested by Mr. Baldridge, to establish a honey-producers' association to make out our market reports, and to offer such suggestions as may be to our mutual advantage. I would further suggest that commission men be not allowed to even advertise their reports in our bee-periodicals.

New Philadelphia,○→ Ohio.

For the American Bee Journal.

Bee-Keeping in Cuba.

A. SNYDER.

Having just returned from Cuba, I desire to give a description of that country for bee-keeping. Scorpions and flies are very plentiful; the sting of the former is very poisonous, often causing lock-jaw and death. Tarantulas (large spider) are quite plentiful, the bite of which is almost certain death. There are many large snakes, but they are not poisonous. The natives all carry a sharp-pointed knife about 8 inches long, in their belt. Their food is very different from ours, and I thought I had next to nothing to eat; not a particle of butter was to be had; no fresh meat, except for an enormous price. Their principal meat is beef cut in thin strips, made as salty as possible, and dried in the sun as hard as leather.

I have had Cyprian, Syrian and hybrid bees (all of good mettle), but they are as gentle as lambs compared with the bees that I saw in Cuba. No one can work with bees there without veil and rubber gloves, and then one's clothes are pretty well covered with stings and bees.

The climate is as fine as one could wish for. There is seemingly no end to the flow of honey, but the price is very low, only about 20 cents per gallon, or 1⅔ cents per pound after paying the duty, which is 20 cents per gallon. Cuban honey is of fair quality, but rather dark. I think that here at the North we can winter our bees with less labor, less expense, and less loss than they can be summered in Cuba. They need constant care during summer, there being but very little honey in the fields at that time to protect them from fighting robbers, and being destroyed by moths. Their honey harvest is from November to March. All the industries of Cuba seem to be far behind those of the United States.

Indian Fields,○→ N. Y.

Local Convention Directory.

1887. *Time and place of Meeting.*

Feb. 2.—N. E. Michigan, at Bay City, Mich.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Feb. 3.—Wisconsin State, at Madison, Wis.
F. Wilcox, Sec., Mauston, Wis.

Feb. 4.—Fremont Progressive, at Fremont, Mich.
Geo. E. Hilton, Sec., Fremont, Mich.

Feb. 12.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Lady Presidents.—Mrs. L. Harrison, of Peoria,⊙ Ills., writes:

Hit him again! Knock the chip from his shoulder! Mrs. Cassandra Robbins, of Indianapolis, Ind., was President of the Indiana State Bee-Keepers' Society for 1884; and Mr. Muth said that she was the best President they had in working up the meeting; and made the best address, although she was diffident as a presiding officer.

Bees Wintering Well.—Wm. Anderson, Sherman,→○ Mo., on Jan. 17, 1887, says:

Very cold weather has prevailed here for some time. On Jan. 3 the mercury dropped down to 21° below zero. It was the coldest we have had for some time, though my bees had a good flight on Jan. 12 and 15, and are in good condition to stand another long confinement. Bees are doing well in this locality this winter, and if nothing adverse happens to them hereafter, we will have plenty of bees next spring.

Report.—J. D. Gehring, Parkville, →○Mo., Superintendent of the Park College Apiary, writes as follows on Jan. 18, 1887:

We have now 40 colonies of bees in good condition, packed with leaves and on the summer stands. We obtained 600 pounds of white comb honey, and 300 pounds of extracted, from 14 colonies, spring count, and an increase of 16. Five were queenless in May, but they held their own and built up to strong colonies, but gave no surplus.

Raising the Price of Honey.—Geo. Poindexter, Kenny,⊙ Ills., writes:

Having had some experience in selling honey, I would say that when I am in a city or town with a sample of honey in one and two pound sections, I enter a large grocery store, show the sample, and tell them that it is warranted white clover or basswood honey, as the case may be. The grocer says, "That's nice; what is that worth." I reply, 15 cents per pound. "Oh," he says, "just step back here and I will show you Chicago prices." In a pamphlet called the Chicago *Grocer*, he finds one-pound sections quoted at 11 and 12½ cents. "We can't pay any more than Chicago prices," he says. Then I take my honey and try some other grocer, when I get the same kind of reference, and so on until I have no honey sold at 15 cents. What shall I do? Wait in the town until the price of honey raises, or sell it at 11 to 12½ cents per pound? Or would it be better to go home and wait until the honey all freezes and cracks, then sell it in the spring with a loss of leakage, and at a lower price? I would like to join an organization that would raise the price of honey, and I would give a little money and all my influence to help make it a success. But with a big crop of fruit of our own, and California fruits lasting all winter, I do not think that the organization would be a success.

Clean, White Sections, etc.—W. H. Kerr, Waynetown,+o Ind., writes:

Is there any surplus honey case made, that will only allow the bees to touch the inside of the sections? The time has come when we *must* place our honey on the market in clean, white sections—sections that bees have not crawled over, and that have not been covered with propolis. I commenced last May with 25 colonies, increased them to 43, and took 2,100 pounds of honey—1,500 pounds of it being in one-pound sections, and the balance extracted. I have 8 colonies in the cellar, 12 in a bee-house, and the balance packed on the summer stands.

[No; the edges of all sections are more or less exposed to the travel of the bees. You can clean them by scraping.—Ed.]

Successful Wintering Expected.—S. Shoup, Coloma,♀ Mich., on Jan. 16, 1887, writes:

The prospects are very fair so far. Bees seem to be in good condition, both in the cellar and on the summer stands, and bee-men generally, here, are feeling pretty confident that the bees will winter well, unless this cold spell remains too long. The past season was a very good one here. I have disposed of the most of my honey at a very fair price. I am holding it at 15 cents per pound. I have taken considerable pains in putting it up, and ship only that which is first-class.

Two Colonies in One Hive.—W. Mason, Fillmore,+o Ind., on Jan. 15, 1887, writes:

In Query, No. 359, it is asked whether it is an advantage to winter 2 or more colonies in one hive. I have 3 colonies in a bee-house now, and I will wait for the results and report. Last spring I put 2 colonies into a Mitchell long hive, putting a division-board between them, and placing a cloth over them. On the third day I took off the cloth, put on the honey-boxes, and put both colonies together for surplus storing. To my surprise everything worked well; they worked rapidly, filling the upper story twice with two tiers of sections. I prepared 2 others in the same way, and with about the same results; but the queens must be retained in the brood-chamber, and in this way we may work as many colonies as we please in one hive, with as many mistresses, so long as they stay at home. I probably will give this matter a more extensive test next season. Up to Jan. 12, we have had very cold weather, the temperature being as low as 32° below zero. The temperature in the bee-house is 42° above.

Bees Under the Snow.—Stephen Gillson, Eureka,⊙ Mich., on Jan. 14, 1887, says:

I am wintering 4 colonies of bees. The hives are packed on top with cushions, and protected by a wind-break all around, except the east side. The hives are full of honey. Last night we had a blizzard that covered them entirely with snow. I am keeping them merely to study their nature, and as a pleasant pastime.

Good Results.—Chas. Solveson, (50—90), Nashotah,o- Wis., on Jan. 16, 1887, writes:

White clover began to bloom on June 1—about 15 days earlier than usual—and my 50 colonies were hardly prepared for so early a harvest; yet from 48 colonies worked for honey, I obtained 2,500 pounds of comb honey, and 3,000 pounds of extracted honey, nearly all being from white clover, as we had but a one-fourth crop of linden honey. We hardly ever have any fall honey, but the past season, however, the bees gathered a lot of dark, bitter stuff, which I presume is what is called "honey-dew;" although I removed large quantities of this "stuff," much still remained amongst their stores for winter. I hope, however, that it was mostly consumed before they were placed in their winter quarters. On Nov. 24, I carried into the cellar 78 colonies, while 12 remained on the summer stands packed with chaff. All appear to be doing well so far, although it has been 40° below zero.

Gasoline Stove for Heating Bee-Cellars.—Dr. A. B. Mason, Auburndale,-o O., writes:

Dr. Tinker, on page 825 of the Bee Journal for 1886, says "There is nothing impracticable about raising the temperature of a bee-cellar by means of an anthracite coal stove." Where would the Doctor put the stove-pipe, if there was no chimney for the cellar? My "better half" helped me out of such a dilemma two years ago. Our cellar was getting too cold to suit me, and I could think of no way to warm it. We burned coal, so I had no live coals to use, but we have a gasoline stove, and she suggested that we try that, and it worked to perfection; for in a very few minutes the temperature was all right. Now I hope no one will ask me what I would do if I had no gasoline stove or chimney, for I should at once say, get a gasoline stove, especially if you have a wife, mother, or sister that has to swelter over a hot stove in preparing you something to eat, or when ironing your "Sunday-go-to-meeting shirt." I have been using that same stove again this winter, and with lots of comfort too, to keep the cellar at the right temperature.

The Priority Question.—Dr. C. C. Miller, Marengo,♂ Ills., says:

And now it is Mr. L. N. Tongue, on page 24, who sets up the priority question in order to knock it down. Has Mr. Tongue not yet found out that nobody ever asked for, or hinted at wanting legislation on the priority question?

Results of the Season.—John P. Wylie, Prairie Centre,♂ Ills., on Jan. 14, 1887, says:

I started last spring with 15 colonies of bees in healthy condition. The first swarm issued on May 22, and the total increase was 36 swarms. I sold 3 first and 2 second swarms when they issued; I now have 46 colonies. I secured 2,600 pounds of comb honey. Some of the second swarms did not yield more than 20 pounds. The drouth cut the crop considerably shorter than it would have been, as the white clover plants dried up and did not yield much honey.

Partly-Filled Cases on Hives.—J. F. Benner, New Lisbon,o+ O., on Jan. 12, 1887, writes:

I commenced last spring with 16 colonies, part Italians and part hybrids. Ten were good colonies, 4 medium, and 2 weak. The spring was late, but with care they built up rapidly, and commenced to swarm about May 15, earlier than I had known bees to swarm for 40 years. I increased them to 35; I could have increased them to many more, but not wanting them, I put back and doubled up quite a number. I took about 1,500 pounds of fine comb honey in one-pound sections, and 100 pounds of extracted. I could have taken perhaps 200 pounds more in partly-filled cases, but as honey was low in price, and of dull sale, I concluded to let the bees have it. I know many of our best apiarian writers condemn the practice. My bees are all in chaff hives, packed away about Nov. 1, in excellent condition.

Dr. Miller's Book, "A Year Among the Bees," and the Bee Journal for one year, we will club for $1.50.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS.
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

We Keep this Notice standing all the year round : "Always give the name of the Postoffice to which your paper is addressed. Your name cannot be found on our list unless this is done," and yet many ask us to change their address without even mentioning to what Postoffice it has heretofore been sent. It often costs us more to find their old address than they pay for the BEE JOURNAL for a year ; as we may have to examine our subscription lists in every State, Province and Territory in North America. Please be more careful in the future, and never omit your name, Postoffice, county and State.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages ; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Premium Worth Having.—The New York *World* and the AMERICAN BEE JOURNAL (both weekly) will be sent for one year to any address in North America for $2.00. And in addition PRESENT to every such CLUB SUBSCRIBER a "History of the United States," containing 320 pages and 22 fine engravings, bound in leather and gilt.

This "History" will be sent FREE by express at the subscriber's expense ; or will be mailed for 10 cents extra to any place in the United States or Canada.

It is arranged chronologically by years, from 1492 to 1885. Every event is narrated in the order of its date. These are not confined, as in other works, to political matters, but embrace every branch of human action.

This premium is worth the whole of the money sent for both periodicals, and should induce thousands to subscribe, and thus get two unrivalled weeklies for nothing.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

All New Subscriptions will begin with the year, and until further notice we will send the back numbers from January 1, unless otherwise ordered.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., **40** cts. ; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00; or 1,000 for $15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen ; if sent by mail, add 1 cent each for postage

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

Our Book Premiums.—To encourage all our present readers to get one or more additional subscribers we will present 25 cents' worth of books for every new subscriber (accompanied with $1 for one year's subscription), sent direct to this office. Thus for five new subscribers with $5, the getter up of a club gets $1.25 in valuable reading matter, to be selected by himself from our list on the second page of this paper. It will pay you to devote a few hours to the interests of the BEE JOURNAL. Every one who keeps bees ought to take it. We will furnish sample copies *free* in any quantity to those who intend to get up clubs. We expect to get 5,000 *new* subscribers for 1887.

◆

The Report of the Indianapolis Convention is now published in pamphlet form, uniform with that of last year. It will be sent postpaid for 25 cents to any address.

We have also bound it up with last year's, together with the History of the Society ; this we will mail for 40 cents. Or if you send us one *new* subscriber (with one dollar) besides your own renewal, we will present you with a copy by mail.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

* * *

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

As a premium to the second largest club we will send my mail, postpaid, a copy of the "Farm Account Book," worth $3. The postage is 20 cents.

* * *

A New Crate to hold one dozen one-pound sections of honey.—It has a strip of glass on each side, to allow the honey to be seen. It is a light and attractive package. As it holds but one tier of sections, no damage from the drippings from an upper tier can occur. We can furnish the material, ready to nail, for 9 cts. per crate. Glass 1½c. per light, extra.

* * *

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices : 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

* * *

There will be a Rush for supplies needed in the apiary after awhile, and we cannot do better than to urge all to look over their stock, ascertain what will be needed, and get it on hand before it is necessary for use—thus avoiding the perplexity consequent upon its possible delay in reaching them in time.

* * *

By Using the Binder made expressly for this Bee Journal, all can have them bound and ready for reference and examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

* * *

It is No Longer an Open Question whether newspaper advertising pays. What a business man now considers in this connection is how, when and where it can be done to insure the best returns on the investment. Have something of value to sell; then select the paper which sends the greatest number of copies to those who should use the article. Use as few words as possible, and let them be printed in large type, so as to catch the eye. These are some of the secrets of successful advertising.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey ; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. No demand for extracted, and very little for comb.

BEESWAX.—22c.

R. A. BURNETT,
Jan. 19. 161 South Water St.

NEW YORK.

HONEY.—We quote prices as follows : Fancy white in 1-lb. paper boxes, or glassed, 13c.; same unglassed, 12c., and in 2-lb. glassed sections, 10@11c.; off grades 1 to 2 cts. per lb less. Calif. comb, 8@10c.; fancy buckwheat 1-lbs., 8½@9c., and 2-lbs. 7½@8c. Extracted white clover, none in the market. Calif. ext'd, 60-lb. cans, 5@6c.; buckwheat, in kegs and barrels, 4@5c.

BEESWAX.—21@23c.

McCAUL & HILDRETH BROS.,
Dec. 7. 34 Hudson St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.

Jan. 1. Blake & Ripley, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.

Jan. 10. M. H. Hunt., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.

Jan. 11. C.F. Muth & Son, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c. dark 1-lbs., 10c.: white 2-lbs., 11@12c. Extracted, 6c. Market dull.

BEESWAX.—25c.

Jan. 14. A. C. Kendel, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.

Jan. 19. A. V. Bishop, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote : Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

HONEY.—We quote good to choice extracted at 4¼c., and comb honey firm at 8@12c.

BEESWAX.—Active at 18@21c.

Jan. 10. Schacht & Lemcke, 122-124 Davis St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.

Jan. 13. Clemons, Cloon & Co., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3¼@4c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4@5.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.

Jan. 19. D. G. TUTT & CO., Commercial St.

Advertisements.

READY TO SHIP. — Langstroth Brood-Frames, prepared to nail, at 90 cents per 100 ; 500 for $4.00. I have several thousand of those Nice Brood-Frames in the flat, which, if ordered before Apr. 1, may be had for $8 per 1,000, freight prepaid by C. W. DAYTON, Bradford, Iowa.
2Etf

EVERGREENS.

FOREST TREES.—11,314,000 sold in 1886. Ten times as many ready for 1887. I offer the largest stock, greatest variety and lowest prices to be found in America. Wholesale lists free.

Geo. Pinney, Evergreen, Door Co., Wis.
2E2t

CAN YOU RESIST THIS ?

THE BEAUTIFUL, instructive and amusing **CHROMO CARD**, designed especially for Bee-Keepers. It has a decided happy effect wherever shown. This CARD will not be thrown away. When the articles represented upon it are explained, the story will be repeated many times, educating people and extending your reputation. **Bees, Flowers, Children and Implements elegantly printed in eight colors.**

Sample package, **10 cts.**—One sample and Price List of some old things, some new things, and all to profitably aid bee-keepers.

Address, **J. H. MARTIN,**
4Atf HARTFORD, N. Y.

FOR SALE.—FARM—splendid location for Bees or Fine Stock.—Address, WM. STEPHENS, Chetopa, Labette Co., Kans.

Bee-Keepers' Supplies
of all kinds kept in stock,
at low rates.
THE QUINBY SMOKER
a specialty.
Send for Illustrated Price-List.
W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

JESSIE.

We are the introducers of the Jessie Strawberry, and the only firm that can supply plants to the trade. It is the most remarkable new fruit of the age. Send for particulars and colored plate; also for copy of Green's Fruit Grower, and our illustrated Fruit Catalogue.

TREE SALESMEN WANTED.

You can make money selling our trees, and get your own trees free. Green's Guide to Grape Culture, 25c. Green's Guide to Strawberry Culture, 25 cents. Green's Fruit Grower, 50c. per year, and Green's "How to Propagate and Grow Fruit," 50c, all to one address for 50c. Green's Tree Agent's Guide, 15c. Green's Books, (3) combined with 15 colored plates, gilt cover, 75 cents. Green's Descriptive Catalogue, with 5 colored plates and two back copies of Fruit Grower, 10c. Address,

GREEN'S NURSERY CO.,
4A5t ROCHESTER, N. Y.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive**, the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS, Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

WE WANT Agents everywhere to travel and distribute circulars **ON SALARY** in every town and village they pass through. Men and women, boys and girls, who do not wish to be away from home over night, have a grand opportunity to make **Hundreds of Dollars** in their own vicinity. All who wish to distribute circulars for us will be required to have samples of our goods on hand to exhibit to whoever may call on them to see the goods which they are advertising for us. A sample package of our goods and full particulars will be sent with circulars **FREE.** ☞ Write and secure an agency before it is too late. Send **15 CENTS ONLY** to help pay postage, packing, etc., etc., and we will forward to you at once, together with a contract for you to sign. This contract explains how a **salary is paid monthly**, and the **EXPENSES IN ADVANCE.** You can have your name and address printed on the circulars if desired. Address at once,

The National Supply Co.,
BRADFORD BLOCK, CINCINNATI, OHIO.

1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?" AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

1A6t 7D6t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—**Humphreys' Medicine Co., 109 Fulton St., N. Y.**
45A12t

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of receipes, and much valuable information.

Price 25 cents—in English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street, Chicago, Ill

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

BEESWAX.

We pay **20c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name hould always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

NON-SWARMING BEE-HIVES.

Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Send 2 cents for Circulars.
VICTOR W. CLOUGH, GENESEO, ILLS.
51A12t

PRIZES!

ARE offered by the Magazine, to the Subscribers who obtain the largest amount of Comb Honey during 1887. Write for particulars. **THE BEE-KEEPERS' MAGAZINE, 25 cents per Year.**
1Atf **BARRYTOWN, N. Y.**
(Mention this JOURNAL.)

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

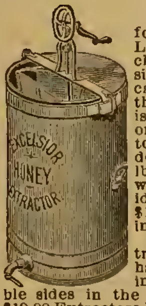
Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,		13x13	inches	........$8 00
For 2 Langstroth	"	10x18	"	.... 8 00
For 3 "	"	10x18	"	.........10 00
For 4 "	"	10x18	"	.........14 00
For 2 frames of any size,		13x20	"	.........12 00
For 3 "	"	13x20	"	.........12 00
For 4 "	"	13x20	"	.........16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

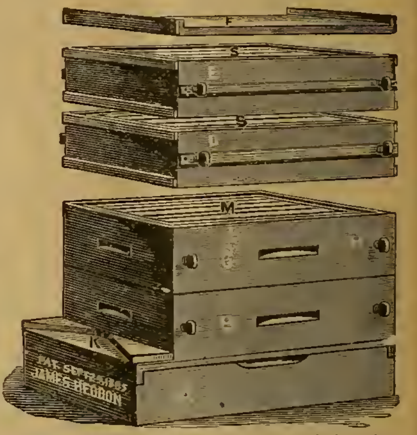
It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.



The engraving gives a good idea of the hive. The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00.**

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

VICK'S

FLORAL GUIDE.

If you are in want of **SEEDS** or anything for the Garden, send 10 cts. for above, which can be deducted from the first order.

JAMES VICK, SEEDSMAN,
ROCHESTER, N. Y.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Feb. 2, 1887. No. 5.

Another bee-paper is to be started in Canada to be called "The Canadian Bee-Keeper," to be published monthly at Brantford, Ont.

◆

An English Horticulturist, who is a careful observer of insect life, has noticed that honey-bees rarely go near those flowers which bumble-bees seem to like best.

◆

The Bee-Keepers' Advance is the name of a new bee-paper published by James B. Mason & Sons, Mechanic's Falls, Maine. It contains 16 pages, and is published monthly at 25 cents per year.

◆

Died.—Mrs. J. T. Wilson, of Nicholasville, Ky., died of pneumonia on Jan. 20, 1887, at 1 a.m. This we learn from the afflicted husband, who is known to our readers as an apiarist, who adds: "She was a faithful Christian, a loving wife, and a devoted mother." We condole with Mr. Wilson in his bereavement.

◆

Three Colonies of bees were found, about the middle of January, occupying comfortable quarters in different hollows of the trunk of one tree. Mr. Berl Matteson, of Bingham, Mich., was the one who was thus surprised when cutting down a tree. He sawed out the part containing the bees, took it to his home, and will endeavor to winter them. They appeared to be well provisioned with honey.

◆

A Correspondent sends us a printed slip, stating that a family in New Jersey had been "made ill by poison in their honey," and asks: "What will be the effect of these frequent reports upon our pursuit?" As this is a case where the poison was put into the honey for the base purpose of injuring others, it will have no more effect upon the pursuit than it would upon the dairy interest if it had been put into milk. Evil minded persons may put poison into anything, if they are intent upon injuring others.

Home Markets for Honey.—We have for years been trying to impress upon bee-keepers the necessity of working up their home markets—creating a demand for honey. Now that prices are low is just the time to think. Bee-men have themselves contributed largely in depressing the markets in large cities, by glutting them with honey, and then the prices there reduced on that account are made the standard for the country towns. Now the only cure for this is to prevent the bulk of the honey from being sent to the large marts of trade, and have it consumed at home. This can be done, if every person interested will but *labor with this end in view.* To illustrate this idea, we ask attention to the following from an exchange, which is "right to the point:"

One characteristic of success is close and wide-awake attention to the work in hand, such, for instance, as marked a New York driver on the line of stages which have recently been withdrawn from Broadway. He had a genius for driving a stage, and was noted for keeping his stage full of passengers, and for taking in more fares than any other driver on the route. His success was not accidental. His eyes were forever on the lookout, both on Broadway and in the side streets, so that he never failed to see a distant nod nor a slight gesture.

A similar alertness for business is noticeable among the fruit-venders. Three carts full of bananas and other fruit may be seen standing close together by the sidewalk. The man in the middle cart will work every moment—standing up calling attention to his stock, and alert to grapple with any one who comes up with the slightest intention of buying.

But the other venders will be seated and half-dozing, or reading a newspaper, carelessly waiting for a customer to ask for fruit. Before noon the appearance of the wagons shows the inevitable result. By night, the middle wagon is empty, while the other venders wheel home a good part of their stock to keep until the next day, and complain of "bad luck" and "hard times."

To follow the example of the "hack-driver" and "fruit-vender" is a sure cure for the "slow sale" and "low prices" of honey. If you cannot do the selling, you can easily *hire* some one to do it. There are a plenty of men who would be glad of the chance to do it for a commission.

◆

Ex-President I. N. Cotton, of the Indiana State Bee-Keepers' Association, wants to add the following to the remarks heretofore made about lady presiding officers at bee-conventions:

I see that the question of ladies presiding at bee-keepers' meetings has been raised. The Indiana State Bee-Keepers' Association, in 1884, elected Mrs. Irvin Robbins President, and she served for one year with honor to herself and credit to the Society. Are not the Indiana bee-keepers ahead?

◆

Catalogues for 1887.—Those on our desk are from

Paul L. Viallon, Bayou Goula, La.—20 pages—Bees and Apiarian Supplies.

E. S. Hildemann, Ashippun, Wis.—4 pages—Bee-Keepers' Supplies.

Frank A. Eaton, Bluffton, O.—6 pages—Italian Bees and Queens.

E. C. Long, Williamsville, N. Y.—4 pages—Bees and Apiarian Supplies.

Iowa Seed Company, Des Moines, Iowa—36 pages—Seeds, Plants, etc.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

Honey Sold on Commission.—We have for years urged bee-keepers either to sell their honey in their home markets, or, if they must ship it, to be sure to sell it for cash, rather than to leave it to be sold by commission men. In this issue of the BEE JOURNAL, Messrs. F. I. Sage & Son give their views on this subject in very strong language. They wind up by saying "either the cash buyers or the commission men must go." They present many good reasons for coming to this conclusion, and we hope their remarks will be read carefully, and considered thoroughly.

While we have sold considerable honey in Chicago, we always buy it of the producer and then it is our own, to sell at such prices as we may deem best, and many times have we sold it at a less figure than we gave for it. We have now on hand about fifty thousands of pounds of white extracted honey, and should be glad to sell at any day for less than it cost us. If it was held on commission by some men, it would no doubt be sacrificed so as to get the commission; but now, while nothing could be gained by an immediate sale, much may be realized by holding it for a rising market.

It is never right to give the control of your property out of your own hands; and to ship honey to be sold on commission by unreliable parties, is the greatest of foolishness, entailing loss to the owner, and breaking down the market for all other producers. It is always safe to find out whether those to whom you ship goods are reliable, *before* entrusting them with your property.

◆

The Canadian Honey Crop.—In his annual report, the Commissioner of Agriculture for Ontario, remarks as follows:

"The reports from the apiarists of the Province are extremely contradictory as to the success of their industry during the past season. Some correspondents state that the honey yield has been an unusually large one, that bees have swarmed well, and are in fine condition for winter, while others in the same township complain that the very opposite condition of things prevails. Taking the Province as a whole, however, the favorable reports are in a decided majority, and the yield of honey may be described as from fair to good. The area of apiculture appears to be extending in the Province, notwithstanding that some old apiarists have given up the industry, owing to the fatality of recent winters, and the fact that the low price of honey—8 to 10 cents per pound, a figure frequently quoted—is generally complained of."

◆

It is Said that bees can predict the weather. They do it with their little stings, and, curiously enough, they always make it warm.

◆

The Capital of the United States has not a very ancient history, but its early days are worth recalling, when done as interestingly as W. Edgar McCann has done in the February number of FRANK LESLIE'S POPULAR MONTHLY. As if in contrast we are then taken from pictures of Old Washington to the "Domesday Book," that monument of the political sagacity of William the Conqueror. Dr. Joseph Simms, in an article on "The Forehead," combats some popular ideas, and shows that genius has often lurked under a receding brow, and idiocy or crime under a well-developed one. "The Man Outside"—"An Incident of the San Gabriel Valley" and "Our Sweetheart" are all worth reading, and the illustrations unusually good.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Feeding Bees in the Spring.

Query, No. 368.—When feeding bees in the spring, that were wintered on the summer stands, at what degree of Fahrenheit should the weather be to make it safe to open the hives to feed the bees?—C. L., Iowa.

Almost any spring weather will do, if you do not leave the hive open unnecessarily.—DADANT & SON.

If the sun shines, at 50° and above. If the day is cloudy, it had better be 60° and above.—G. L. TINKER.

If they need spring feeding, you can do it any bright sunny day. Close the hive as soon as possible.—H. D. CUTTING.

I should choose a "warm day," say with the temperature not below 55° or 60°. I do not think, however, that this is important.—W. Z. HUTCHINSON.

If in the morning, 60° to 80°, according to clouds and wind. If late in the evening, any temperature will do. The main point is not to excite the bees to fly out to become chilled to death.—C. W. DAYTON.

I do not like to open the hive to take out frames, etc., at a lower degree than 60° in the shade. But why disturb the brood-nest in feeding? It is not necessary.—G. M. DOOLITTLE.

Just that temperature when the bees can fly out with safety. At least that is my opinion, and it works well with me, in carrying it out in practice.—J. E. POND.

I place the feeder above the cluster, and I can feed at any temperature. This is why I like the Smith feeder, as described in last editions of my book.—A. J. COOK.

Sixty to 70° and upwards. Much depends upon whether or not the sun strikes the hive, as it should. I always reckon degrees on a thermometer that stands in the shade.—JAMES HEDDON.

It is best to give enough feed in the fall. About 50° I think is best. If in great need of both, I would quickly raise the quilt and lay sticks of candy between and across the frames over the cluster. As soon as warm enough, feed sugar syrup in atmospheric feeders over the cluster. If they will take it up, keep on until they get enough to last until they can gather from natural sources, then stop "tinkering."—J. P. H. BROWN.

I feed them soft candy or candied honey on top of the frames at any time, if I know they need feeding. Of course I do not keep the hives open but a moment of time, and cover the bees up warmly after the feed is placed in position. If it is a mere question of handling bees in the spring, I do not disturb them unless it is warm enough for the bees to fly in the open air. I do not handle them when it is so cool that the bees are likely to be chilled if they are dropped from the combs. You cannot always tell when this would occur, by the degree of Fahrenheit.—G. W. DEMAREE.

You cannot go altogether by the thermometer. On a clear, dry, bright sunshiny day, a lower temperature will do than on a cloudy, damp day. You had better not disturb bees much when they cannot fly freely. Still, if they are likely to run out of stores, you can put some feed where they can get at it even when quite cold.—C. C. MILLER.

It is quite unnecessary to open the hives in order to feed the bees. If you must open the hives, let the temperature be at 50°, Fahr., if it is a bright day; or more, if it is cloudy.—THE EDITOR.

Ventilating Bee-Cellars, etc.

Query, No. 369.—1. If bees are wintered in a cellar that is kept at a temperature of 40° to 50°, is other ventilation than is ordinarily given a fruit and vegetable cellar essential? 2. In such a cellar is absolute darkness essential?—B., Iowa.

I think not.—JAMES HEDDON.

1. No. 2. No.—H. D. CUTTING.

1. No. 2. Yes. There are exceptional instances, though. — C. W. DAYTON.

I think that your cellar is all right as it is. It is better to be dark.—J. P. H. BROWN.

No; but I would prefer a little ventilation in mild weather, and darkness at all times.—G. M. DOOLITTLE.

1. In my opinion, no. 2. I think that absolute darkness is an essential requirement for cellar wintering.—J. E. POND.

If there are many hives it will need more ventilation than if there are only a few. Absolute darkness is not essential, but it is *far the best*, as fewer bees will try to go out.—DADANT & SON.

I cannot comprehend why an abundance of pur air should be objectionable; neither do I know that any more ventilation is needed than that ordinarily given a fruit and vegetable cellar. I do not think absolute darkness objectionable; neither am I certain that it is essential—W. Z. HUTCHINSON.

No; my cellar is 25x30, and 7 feet deep. It is closed up as tight as I can make it, so that no perceptible current of air comes in anywhere. Notwithstanding, there is an active circulation of air in the cellar, owing to the presence of a fire in one of the rooms overhead.—G. L. TINKER.

1. Yes. 2. Not as long as the bees are quiet. Bees in the best condition are not likely to be disturbed by full daylight, but when they get uneasy, darkness will, I think, keep bees in the hive that otherwise would come out. On the whole, I prefer to have my cellar perfectly dark, generally.—C. C. MILLER.

I do not think that any other ventilation is required for a few bees. For many, I should like sub-earth ventilation, so as to be sure of the right temperature and good air. I would have the cellar perfectly dark.—A. J. COOK.

Other ventilation is not necessary. Though "absolute darkness" may not be positively essential, it is generally desirable.—THE EDITOR.

Why did the Bees Perish?

Query, No. 370.—Late in the fall of 1884 I had 3 light colonies of bees that I fed sugar syrup by putting it in combs and placing one hive (American) on top of another, for the bees to carry the syrup down. But within 24 hours it became intensely cold, and remained so for about 20 days. When I opened the hives I found them nice and clean, but to my surprise the bees were dead, with plenty of honey within reach. The hives were packed from 3 to 4 inches on all sides, but not on top. They had a screen 6x6 inches in the bottom-board, and the top was on each hive. 1. Can you account for the bees perishing? 2. Will bees freeze when all the conditions are right?—S. B., Ind.

1. No. 2. No.—JAMES HEDDON.

In all probability they starved. When bees become very cold they will not leave the cluster for food, but remain and starve.—H. D. CUTTING.

I guess they starved to death. It was so cold that they could not leave the cluster to get the honey.—C. C. MILLER.

The bees starved to death. Next time put the food where the bees can get it—*at the cluster*—and not away off, separated from the bees by a barrier of freezing atmosphere.—J. P. H. BROWN.

The bees were not able to reach the honey, and starved. If bees can get to their stores they are not liable to freeze.—G. L. TINKER.

Bees will not freeze when all the conditions for successful wintering are right.—G. M. DOOLITTLE.

The bees may not have gotten their stores in proper shape for so long-continued and severe cold. I do not think that bees will freeze "when all the conditions are right."—W. Z. HUTCHINSON.

The cold was so intense that functional activity ceased. The bees perished with the cold. This is why I prefer cellars to packing or chaff hives.—A. J. COOK.

Twenty days of intensely cold weather without any let-up would perhaps wear out the constitution of almost any colony of bees, situated as you describe the colony in question. I have frequently had the opportunity to learn that bees in the cluster can endure intense cold for a few days at a time, but this does not argue that continued cold will not wear them out.—G. W. DEMAREE.

1. I should guess that they froze to death, being in such a condition that they were unable to economize the heat of the cluster. 2. If I should find a colony of bees frozen, I would know that at least one of the most essential conditious was wrong, namely, ample protection.—C. W. DAYTON.

In all probability the extreme cold weather came on before the stores could be brought down in quantity sufficient for the bees to live on, and as they could not break from their cluster, they simply starved because their stores were not within their reach.—J. E. POND.

1. Not being able to reach the honey on account of the length of the "cold snap," the bees probably starved. 2. No.—THE EDITOR.

Correspondence.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ↖O northwest: O↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Legislation for Bee-Keepers.

DR. C. C. MILLER.

I have read carefully Mr. Heddon's article on page 775 of the BEE JOURNAL for 1886, and would give 17 cents to sit down in a room all alone with him and talk it out. I have also spent some time looking up the articles written on "Priority of Location." In the first three paragraphs of his article on page 775, I am in entire accord with him, excepting the first sentence of the second paragraph. There are matters of right that do not come within the province of legislation. He thinks that bee-territory is one of them. Just at this point our views diverge. As I look at it, for the farmer as well as the bee-keeper, it is best that the territory be distinctly marked out, and this by legal enactment. I think the time would never have been taken up in the discussion of priority of location if there had been legislation. That whole discussion was based upon the belief that for the most successful prosecution of bee-keeping, control of territory was necessary, and as there was no such thing as legal right in the case, the next best thing was to try to hold it by other means. That very discussion showed the need of having the matter settled in some way, in the opinion of at least part of the writers.

The question as to the prior right of the first comer need cut no figure in the present case. If we can hold peaceable possession of our territory, I should even be willing to have a fresh deal made, and pay full price for a deed to my territory. If I believed that one person has the same natural and moral right as any other, I certainly should want the territory divided up by law. In the generality of cases, I believe in the priority right, but the man who has the fullest confidence in his moral right to the territory he first occupies, needs to feel that he has a legal right.

Mr. Heddon thinks that "whoever will present this proposed legislation to an able lawyer, will first receive a smile in return." Quite likely. Probably a large majority of persons, at first thought, will feel like smiling at such a proposition, but after a little thinking the able lawyer might think differently.

Mr. Heddon asks if I get the "idea of the relation between a condition of bee-keeping that will result in the greatest good to the greatest number, and the question of the survival of the fittest." Yes, I think I do, but that is not what we were talking about. I said I did not see "how he reconciles the idea of a natural exclusive right of the prior occupant with the 'survival of the fittest.'" Neither could I, with my idea of what was involved in priority of location.

But in the article in question, Mr. Heddon says that "priority of location gives one a natural right, *provided he is fitted to hold that location.*" (Italics are mine.) Now, look here, is not that rather a new departure? Narrowed down to few words, does it not mean just this—the man first on the ground has the right to hold it, *provided* he can keep everybody else away? Never mind, we will not quarrel over that part of it, but I will try to show what seems to me the need of legislation in either case. If I am not mistaken, Mr. H. advises that in case any one invades my territory I shall increase my number of colonies, and by thus over-stocking the ground make it so unprofitable that he will abandon the project. He mentions that he has practiced this, and that three or four persons who have already tried, in as many instances, to occupy some of his territory, have learned by sad experience the unwisdom of their attempt; and his words imply the possibility that now and then some person may do the same thing again. Now the sad experience of those three or four persons was a bad thing *for them*, wasn't it? It cost them something in dollars and cents, to say nothing of the mental damage resulting from the feeling of failure. For their sakes, would it not have been better if he could have saved them their loss by saying, "This territory I hold in fee simple as my own, and you must go elsewhere if you want to keep bees?"

But leaving their loss out of the question, did their experience cost Mr. H. nothing? I wish we had the exact figures in the case, with full details. But without having them, let us make a little estimate, and I will try not to be unfair. Suppose a given locality occupied by A, with 100 colonies, and any number beyond that will overstock the ground. B starts up on the same ground. The number of colonies kept by him may vary from 1 to 100 or more. It is not likely to be the larger number, but whatever the number, we will suppose that A, being the fittest to survive, increases his number, thus overstocking the ground so badly that B, with his bad management, gets little or no surplus, and gives it up as a bad job, with a total loss of his whole investment. Of course the more bees he has, the greater will be his loss.

Let us see see how it is with A. If 100 is his maximum number of colonies for greatest profit, and can gather all the nectar within reach, if he increases one colony more he loses just the amount that colony consumes for its own use—say 50 pounds of honey—and for every additional colony that he increases, he will lose the same amount. He will also lose at least the same amount for every colony B keeps.

I can hardly see any way to figure, that A will not lose nearly as much as B, and if B has only a small number, A is likely to have much the heaviest loss. Now is it right that A shall undergo this tax now and then, even if he does hold the ground by it? The farmer pays so much, and owns his territory without fear of intrusion; why not the bee-keeper?

Another thing: Can any one tell how far from an established apiary it would be right for a new man to start? Opinions will probably vary upon this point for years to come, and, in case of clashing, who is to settle it?

Again, we have supposed thus far that the field is fully occupied, and that the occupant will have no difficulty in overstocking it. This is hardly true in the majority of cases. C has 50 colonies, and depends mainly upon his bees for his bread and butter, having nothing ahead. If D starts in with 25 colonies on C's ground, it may be some years before C can "freeze him out," especially if C has the same disaster some of us have had in wintering bees.

Still again, the intruder may keep a number of colonies for a series of years, even if it is a losing game, hoping the tide may turn, and as he has other business upon which he depends for a living, and as he gives little time to his bees, he can go on continuously from year to year, with 5 or 10 colonies, and 5 or 10 such men in a field may spoil it for any man. No one need tell me that a man's self-interest would prevent him from doing this. It *is done*. I know of cases, and probably others do. On all accounts, then, should not every man have a legal right to his ground?

Marengo, ♁ Ills.

☞ The Wisconsin State Bee-Keepers' Association meets at the Capitol in Madison, Wis., on Thursday, Feb. 3, 1887, at 9 a.m. All progressive bee-keepers are earnestly invited to attend, and supply-dealers are requested to exhibit their best implements and inventions. The State Agricultural convention will be in session at the same time, commencing on Feb. 1 and closing on Feb. 4, which will be an additional inducement for many to attend. Hotel rates are from $1 to $3 per day. Return tickets will very probably be given over the principal railroads at reduced rates.

F. WILCOX, *Sec.*

For the American Bee Journal.

The Marketing of Honey.

J. H. ANDRE.

I am pleased to see that this leading part of bee-keeping is being thoroughly discussed. The business at the present time looks more like a regular stock-gambling affair than one of the legitimate branches of sustaining a livelihood.

I expressed my opinion some time ago, that the producer and consumer were both at the mercy of the retail dealers. They usually pay in trade 10 cents per pound, which is equivalent to about 8 cents; and retail honey for 12 to 15 cents per pound. In this vicinity some are selling splendid comb honey for 7 cents per pound, and I do not doubt but some has been sold as low as 5 cents.

What we need is a dealer in every city of 10,000 inhabitants, or upward, who will take all honey that comes to market, and handle it honorably; if it cannot all be sold in his home market, let him ship it to some larger city. In order to do this I do not see how it can be done without a regular "Union," and prices published weekly, each member of the Union to be furnished with price-list. Of course it would have to be backed up by funds, but let each member pay 50 cents or one dollar annually.

This business of selling must become a regular trade, or we may as well stop bee-keeping. It needs a dealer in every city that will give it the same attention that a butter-dealer gives his trade. There would be no need of running the business alone in a small city; poultry, butter or fruit dealing could be united with it, but let the honey trade take the lead. When the honey trade is recognized as a regular business, this 5-cents-a-pound business will stop. People will have some confidence in it then.

I am not at all afraid but what the minds of those who have undertaken the matter will set it to rights; for it has become a public necessity, and such has been quickly righted in all ages.

Lockwood, ♀ N. Y.

For the American Bee Journal.

The Ohio State Convention.

The Ohio State Bee-Keepers' Association held its annual convention at Columbus, O., on Jan. 11, 12 and 13, 1887. The first day only an informal meeting was held.

The morning session of the second day was called to order, with Dr. H. Besse in the chair. The minutes of the previous meeting, and the Treasurer's report were read and approved.

The election of officers resulted as follows: President, Ernest R. Root, of Medina, O.; Secretary-Treasurer, Frank A. Eaton, of Bluffton.

By request of the convention, President Root gave the following talk on

FOUL BROOD.

The disease first broke out in his apiary about the first of last July. He was not certain as to how it originated, but thought it was started by robber bees gaining access to a few kegs of honey, which had been purchased some time before. He said that the incipiency of the disease was difficult to describe. A few affected cells appeared at first; the larvæ were of a light coffee color, and as the disease advanced the larvæ changed to a dark coffee-color, like the coffee berry, and finally dried up in one side of the cell. If a tooth pick be inserted into an affected cell, the diseased matter will adhere, forming a sort of string.

He stated that during the past season they had sixty cases of it. Each, as soon as discovered, was treated as follows: All the combs of the affected colonies, after the bees were shaken off into a clean, new hive, were consigned to the boiler furnace. He thought it cheaper to give the bees a clean, new set of frames filled with foundation, than to extract the old diseased comb, render out the wax, and boil the frames for use again. The diseased hives were then scalded out with steam. He was not sure but that the disease might appear again the coming season, but in no colonies so treated did the disease re-appear.

Dr. Besse said that he did not think it was necessary to go to that great waste of expense of burning the frames, comb and honey. Why not extract the honey, render the wax and boil the frames, and in that way save that which would otherwise be wasted?

President Root thought that there would be more or less risk attending such a practice; and that robber bees might gain access to the diseased honey and wax while so working. After some further discussion of the subject, the convention adjourned to meet at 1 p.m.

AFTERNOON SESSION.

The convention was called to order at 1 p.m., with President Root in the chair. A discussion of questions then followed. "How should a house be constructed to keep honey best, both in winter and summer?"

Dr. Besse—Keep it in a dry house, where it never reaches either extreme of heat or cold.

F. A. Eaton—Keep it in a honey-house that gets quite warm in the summer and fall, then remove it to some room where the temperature does not go down to freezing.

"Is comb honey injured, or made unsalable, by its freezing?" After some discussion it was generally agreed that the quality was not injured by freezing, but combs cracked by the freezing and thawing would cause the honey to drip.

"Which is the best method of controlling or preventing swarming?"

J. W. Newlove—I use single-tier crates, and give the bees plenty of room by tiering up. Put a case of sections on the hive about ten days before the honey-flow starts. When the bees are thoroughly at work and have filled the sections about half, raise the case and put under it an empty one, and so on, giving plenty of room. I find that by this plan they seldom swarm.

F. A. Eaton—It is an easy matter to control swarming when running for extracted honey, as a liberal use of the extractor will greatly aid. But the difficulty is when working for comb honey. I have practiced very successfully extracting from the side combs in the brood-chambers, and placing them in the centre. If the colony is very populous I remove one comb, placing in the centre an empty frame with only starters, thereby giving the queen plenty of room; at the same time I put on one tier of sections, then tier up as fast as the honey-flow will warrant.

"Which is the best to give to a swarm, frames full of foundation, or only starters?"

Dr. Besse—I use starters only.

President Root gave W. Z. Hutchinson's plan.

J. S. Rickets said that Mrs. Jennie Culp used full sheets of foundation, and much preferred them.

The convention then adjourned until the following day.

THIRD DAY—MORNING SESSION.

C. E. Jones gave a talk on the production of fine comb honey. He said, in brief, that he does not want a colony very strong with bees, preferring a hive of 6 or 7 frames only. He does not put the sections on too early, but waits until white clover is fairly started, and gives starters only in sections, placing the sections the same way as the brood-frames, so as to insure straight combs. He recommends removing the sections early, and does not aim to secure the most honey, but the best.

"Does it pay to feed back partly-filled sections to finish others?"

It was not considered profitable.

President Root then gave a detailed description of the Heddon hive and its management.

Mrs. Culp—I do not think it profitable to change the hives in an apiary of 50 or 60 colonies, for any new hive, discarding the old ones. She then gave an interesting account of her management of an apiary without help. She works an apiary of 60 colonies; keeps her queens' wings clipped; her report for the past season was 5,600 pounds of comb honey, for which she received 18 cents per pound; and 2,400 pounds of extracted, for which she received 15 cents per pound. Her bees are hybrids. She prefers them for honey to any others.

AFTERNOON SESSION.

The discussion of questions was continued as follows:

"Does the queen determine the sex of her progeny at will?"

Mr. Miller—I have been taught that the sex of the bee is determined by compression, owing to the size of the cell.

C. E. Jones—I think that she has the full power of determining the sex.

F. A. Eaton—I have seen the queen lay eggs in queen-cells only slightly started; also in foundation that was not drawn out more than ⅛ of an inch.

Moisture in bee-hives in winter was discussed at some length. Dr. Besse said that moisture in hives is caused by the moisture in the air condensing by the warm air in the hives coming in contact with the cold air from outside, the same as the frost forms around house-doors in winter.

Mr. J. S. Mock stated a new use for broad frames for division-boards. Nail thin boards on each side, filling the space with dry sawdust, forest leaves or some light material. They are good for winter or summer use.

The committee on exhibits reported as follows: Frank A. Eaton, section-case and skeleton honey-board combined; adapted to the tiering-up system and removing sections with ease. Earl Clickenger exhibited a section-case, a case of fine comb honey, jars of extracted honey, Bingham smoker and honey-knife, and an Eaton bee-feeder. J. W. Newlove showed a combined shipping and honey crate; also well adapted to tiering up.

The convention then adjourned, *sine die*. F. A. EATON, *Sec.*

For the American Bee Journal.

The Cappings over Honey.

W. Z. HUTCHINSON.

I have always enjoyed a discussion with Mr. C. P. Dadant, but, from reading his last article on page 794 of the BEE JOURNAL for 1886, I fear I shall be deprived of the pleasure of controversy to a large extent, as his assertions are so well qualified; but I will do the best I can.

If I understand Mr. Dadant correctly, he admits that all honey-cappings may not be impervious, but his position now is that the majority of them are impervious; and, in stating his position, he gives a line or two from Mr. Frank Cheshire. As he has quoted Mr. Cheshire, I will "follow suit," giving the paragraph preceding the one from which Mr. Dadant quotes. It commences on page 173 of Mr. Cheshire's new book, "Bees and Bee-Keeping," and is as follows:

"Liquid dyes kept within worker or drone cells for weeks, have not, in any case, stained water lying in the surrounding ones, which I have never found other than perfect, notwithstanding the extreme thinness of the walls. The bees labor at both sides of the latter, not only scraping the shreds, but rubbing them into complete union with their maxillæ, and this will account for their freedom from faults; but observation has led one to form a different opinion of the sealing of honey-cells, which, in former years, I described as air-tight. Most bee-keepers have noted that snow-white sealed honey, if kept in a damp place, changes color, the sealing appearing to grow transparent, and the honey itself not infrequently weeping. By experiments and microscopic examinations, I have made evident that former ideas were inaccurate, and that not more than 10 per cent. at most of the sealing of honey is absolutely impervious to air. To extract honey, it is necessary to shave off the sealing; and if this be done skillfully, the wax is removed so free from honey as to show at once that the covers have never been in contact with the cell contents.

"The horizontal position of the cells prevents their being perfectly filled first and covered afterwards; but the bees, when the cell is approaching fulness, cap its lower part, then add honey, and increase the cover, placing shred upon shred, after the manner a turf wall is built, until the process is complete; no smoothing by the burnishing action of the maxillæ on the inner side is possible, so the air intervening between the irregular tape-like shreds cannot escape, and at the close forms a layer between the honey and its cell-lid, giving increased whiteness to the cover, and preventing also immediate leak, even should a fault remain. The air being cut through in uncapping, the caps are removed dry. Steeping in water for three days a well finished super containing about 780 cells, all but 49 revealed that they were defective, by losing their opaque whiteness; for the honey had absorbed water, and was now in contact with the inner wall."

I might bring forth more facts and arguments in support of my position, but it seems as though the above is so complete an answer to Mr. Dadant, that it is unnecessary to say more.

Rogersville,♂ Mich.

For the American Bee Journal.

Cash Buyers vs. Honey on Commission.

F. I. SAGE & SON.

M. M. Baldridge calls the commission men a "curse" to the honey producers. Our opinion is that truer words were never written, and we are pleased to see that some are getting bold enough to speak their minds plainly. That the reader may understand our position we wish to say that for the past eight years we have bought and sold comb honey. In 1884 we purchased 72 tons of honey for "spot cash" at the highest price we could afford to pay; many tons of this honey was bought in the country at from 13 to 15 cents per pound (to pay freight, breakage, traveling expenses, etc., it ought to sell for 2 cents per pound more in the cities), but very soon we found that commission men were underselling us, and in the end we sold considerable honey for less than it cost us in the country. Later we found we could buy honey of the commission men for considerable less than we had been paying in the country. Notwithstanding we sold at a loss, the commission men beat us right along, and informed the wholesale and retail grocers throughout our routes that it made no difference at what price we offered honey, they would discount it, and they did so! The indications are that we shall be compelled to buy of the commission men, who have free use of the different bee-periodicals, and can so work their cards that they can sweep the board every time.

We know honey can always be bought at less than their quotations in the papers, which are given as an advertisement, to induce shipments of honey. After they get the honey, how easy it is, when making returns, to say that it did not come in good order; was a little off in color or quality; we had an unexpected rush of honey from California or elsewhere, and were forced to sell at lower prices, etc.

We have handled more honey than any three houses in New England, during the past eight years, have paid "spot cash" for it, and defy any man to say we owe him for a pound of honey; yet if we wish to insert an advertisement in the bee-papers, it costs us from $15 to $40; while the commission men who risk nothing, but are sure of a good commission, are given a full column of the best kind of advertising. We do not object to paying for our advertisements, but do believe it to the interests of the honey producers that the commission men's quotations should not be published even if they pay for it!

Some may say that cash buyers have helped to lower the price of honey. To prove that this is not so, we shall in the future, no doubt, buy more honey of commission men than ever before, because we can buy it at less figures than we have the face to offer in the country for the same quality of goods. Starve out—kill off your commission men, and your honey will sell for a higher cash price! The more commission men, the lower the price; the more cash buyers, the higher price you will get!

Our remarks are not wholly aimed at those who quote honey in the bee-papers, as there are a number of them who are entire strangers to us, but at this method of doing business, whereby the bee-keeper is entirely at the mercy of the commission men! Let us look at it in a common-sense way. Would any business man be likely to continue to go into the country and invest "hard cash" in honey by the car load, that he may bring it to the cities to sell in competition with men who are selling goods in which they have not one penny invested? Who could do so, and compete with them? We have had enough of it, and shall look to the commission men before investing very heavily with the bee-keepers hereafter, unless the bee-keepers form some scheme by which the commission men will be shut out, and forced to become cash buyers!

We hope this matter will be thoroughly ventilated through the JOURNAL of journals, and if it shall be decided that the cash buyers of honey, who go into the country with their money, are a detriment to the bee-keeper, then let the producers use their best efforts to kill them off, by encouraging the commission men to their utmost. Either the cash buyers or the commission men "must go."

Wethersfield,♂ Conn.

For the American Bee Journal.

Helps in Bee-Keeping.

EUGENE SECOR.

Every business or trade has its trade secrets. Every person "well up" in his business knows something of those trade secrets. (I mean by "trade secrets" the knowledge which has naturally grown up and developed in every department of thought and labor, especially valuable to that department.) Possibly they may not have been learned from books or class periodicals; but, if not, they are acquired by long and patient study and observation—by a thorough mastery of the trade, and by personal contact with superior minds in the same line of work.

All knowledge is not necessarily learned from books. Experience, observation, conversation—these are all teachers. We all know the old adage, "Experience is a dear school, but fools will learn in no other." Observation and conversation, too, are dear schools.

Life is too short to glean all that ought to be known through the sense of sight or hearing alone. Knowledge gained only from personal experience or the face-to-face method is too slow for the age of railways and telegraphs. It did better in Plato's time. Now, it smatters too much of the "from-hand-to-mouth" way of providing for one's physical wants, *i. e.*, work only when hunger compels. That is just the way the man does, who, when he needs any information, has to hunt a neighbor to impart it, or go without. The better way would be to lay by a store for future use, like the thrifty colonists whose interests the BEE JOURNAL represents.

The above is prefatory to what I wish to say as to *helps* in bee-keeping. Langstroth, Quinby, and their contemporaries in the pioneer work of building up the business of apiculture in this country, labored under the great disadvantage of a lack of literature on the subject. What they accomplished was the work of a life time—laborious, unremunerative work too. Every bee-keeper cannot afford to go through the same experience they did, in learning the A B C of bee-culture. It is easier to get our experience largely at second hand. We can now learn in a week what it took them a quarter of a century to find out.

First, then, in the matter of helps, read the standard authors on bee-culture. Do not be stingy about it either. Follow the same plan recommended by a noted Divine regarding the family library: "For every child born, add $10 worth of books." For every colony of bees, you can afford to get one standard work on bee-culture. Keep this up till all the best works on the subject are in your library. If your management of the bees is not enough better to pay for these books, you may well conclude that bee-keeping is not your *forte*.

Having 10 colonies of bees, more or less, and having procured and read some of the many valuable books, if you wish to succeed, and to keep abreast the times, some of the many bee-papers are indispensable. The best students of the age are giving their ideas and observations through the columns of these papers. Some of the best writers have never published their experiments in book form. Much that is interesting and instructive is found nowhere else. They are the guide-boards along the way—yes, better than that, because we can carry these with us. Through them we can talk with the best authorities from Maine to California. Even the advertisements are entertaining—showing the *status* of the art. One bee-paper is not enough, either. All that is valuable is not confined to one. "The liberal soul shall be made fat." If the farmer never enriches his land, he must be content with small returns. If the bee-keeper never fertilizes his brain, he must be content to "play second fiddle," or twang on an old jew's-harp, while the procession is going by.

We cannot learn everything from books and periodicals, but as all men are wiser than one man, we shall be very dull students if we do not get more information out of them than we had in the outset. It is easier to *absorb* the experience of others and verify it, than to originate everything ourselves, and prove it afterward. In bee-talks, whether neighborly or at conventions, we find another source of acquiring knowledge. I never knew a bee-keeper who was not ready to tell all he knew at any time of day or night. Bee-keepers' societies are useful to the learner. And a neighbor who is well "up" in the "secrets" is a well-spring of delight to a beginner, if he knows how to apply the "pump."

Forest City, δ Iowa.

For the American Bee Journal.

Bees Carrying out Brood, etc.

W. H. SMITH.

The author of Query, No. 344, has had an experience similar to my own. In 1884 I had a colony that commenced carrying out brood in all stages, from the smallest larvæ to nearly matured bees. They commenced on July 1, and were still carrying out brood on July 11. How much longer they continued this work I do not recollect, but I remember that after I was completely baffled I called on several neighboring bee-keepers to get some light on the matter, but I failed, until Mr. Wm. Bingham, of Aylmer, Ont., suggested that it was possible they were doing this to make room for the rapid flow of honey that was so plentiful, and as I had already put on surplus boxes which they refused to enter, he recommended drumming them at night until they ceased carrying out, which I did, commencing early in the evening and continuing until about midnight.

The following morning I found that they had carried out only a very few during the night, so I concluded that if that was the treatment they needed, I would give them enough of it, so I continued the drumming for two nights more. I then discovered that they had commenced working in the upper story, and had ceased carrying out brood. They did not trouble in that way any more.

The problem, to my mind, was then fully solved. They had from some unknown cause objected to work in the surplus boxes (a freak peculiar to bees), and had determined to store the honey in the brood-chamber, even at the sacrifice of brood.

BEES STEALING EGGS.

Last year I gave an account of egg-stealing by bees; this year I have another, which is as follows: I had a young colony of Italian bees which I had made by division, giving them comb and honey, with no eggs or brood, but I gave them a queen-cell which in due time produced a fine Italian queen. In the course of time I discovered eggs and brood. I was of course satisfied that all was well, but judge of my surprise when I found that the young bees were black!

My theory is that the Italian queen got lost on her wedding tour; the bees had entered a hive of a black colony and stole an egg from which they reared a black queen.

Mt. Salem, Ont.

For the American Bee Journal.

Joint Bee-Keepers' Convention.

For mutual and individual benefit the bee-keepers of the counties of Butler, Floyd, Chickasaw and Bremer formed the joint bee-keepers' association of Nashua, Iowa, on Jan. 12, 1887.

The meeting was called to order by Mr. George Stocks, of Chickasaw county, upon whose motion Mr. Thos. Tracy, of Bremer county, was elected President; G. H. Potter, of Chickasaw county, was elected Vice-President; and C. W. Dayton, as the Secretary. After transacting the preliminary business of the association, a lively discussion of the important questions of the present time was entered into, lasting two days. As to the profitableness of bee-keeping, it was decided that under good management it would pay economical living expenses.

Should queens be superseded at the age of 3 years? Not unless they showed signs of failing productivenees. The bees will usually attend to the superseding of queens.

How can we get the best quality of honey? Leave it in the hive until it is "dead" ripe.

What has been the average net price of the honey crop of 1886? Eleven cents per pound for comb and 8 cents per pound for extracted.

Can any location be overstocked with bees? It was thought that our location was overstocked by bee-keepers, or else each bee-keeper must be overstocked with bees. It was thought that planting bee-pasturage was essential.

Is it profitable to use foundation in the sections? Yes. How much? A small amount if thick, and more if it is very thin.

What is the best height from the ground to place hives? For the accommodation of the bees, 4 inches. For the accommodation of the operator, 2 feet. It would also be varied by the exposed or windy location.

Is it advantageous to use the sections of old comb left over from the previous year? Not always.

Will the clipping of queens' wings affect their progeny? No.

What about the large reports in the bee-papers? It was observed that they are of sudden appearance and of short duration, often misleading, and a damage to the pursuit.

Thirteen hundred colonies were represented, and 72,000 pounds of honey had been produced in the apiaries of those present.

The convention then adjourned to meet again before the time for procuring supplies for the apiary for the coming season, according to the orders of the Executive Committee.

C. W. Dayton, *Sec.*

For the American Bee Journal.

Our Neighbors and our Bees.

DR. A. B. MASON.

In reading Rev. W. F. Clarke's article on the Canadian bee-lawsuit, on page 823 of the Bee Journal for 1886, I notice the following from Mr. Harrison: "So you may judge in some measure what sort of people I have had the misfortune to live among. It is a deplorable state of things for the 19th century." This reminds me of something I read when a boy, and I often tell it as I remember it, although it may not be as I read it. It is as follows:

A man was moving from one region of country to another some distance away, going from "Down East" to "Out West," I believe, and spending the night at a public house, was telling "mine host" what *bad* neighbors he had, and how glad he was to leave them; and the "good man of the house" told him he would find just such neighbors where he was going.

In a short time another man was moving from the same neighborhood left by the other, and going to the same neighborhood the former had gone to, stopped at the same public house for the night, and his only or greatest regret at moving was, that he had to leave such *good* neighbors. But he was told that he would find just such good neighbors where he was going.

Mr. L. C. Root cut the grass for his neighbor, to prevent his getting stung by Mr. Root's bees. I wonder if Mr. Harrison ever offered to help make that objectionable pig-pen any less offensive. I do not believe that it is necessary to have trouble with our neighbors about our bees. Last season I helped to gather the asparagus near my bees for a neighbor gardener, and occasionally sent them honey to put on their warm biscuits, and they did not "kick up a fuss" about being stung, but laughed at their own swollen cheeks.

At a bee-convention recently, I told how a bee-keeper in Cincinnati got the "right side" of a neighbor. Their lots joined, and there was likely to be trouble about the bees, and the bee-keeper came to me for advice. It being near swarming time I advised him (unknown to his neighbor) to try and get one of his swarms to cluster on one of his neighbor's trees, and see that they found it there. It worked "like a charm," and the bee-keeper *lent* them a hive to put the swarm in, and the trouble was over.

Try some such way, those of you who are likely to have trouble with your neighbors; keep them sweetened up, and see if it does not pay.

Auburndale,⟜ O.

For the American Bee Journal.

Disposing of the Honey Crop.

J. W. BITTENBENDER.

I do not think that we can get complete control of the honey market, as all have a perfect right to keep bees, and in this way we get a class of bee-keepers that we cannot control or influence. If we organize under a law that every one who wishes to keep bees must get a license and give a bond for the faithful fulfilment of his agreement, then we could elect a board to make our prices, and all bee-keepers would have to sell at one price. But in these days we have too many second-class bee-keepers who keep a few colonies of bees; this is the class that injures our honey market, as they have not enough honey to bother with, and as a general thing they have a poor grade of honey, poorly gotten up, in large boxes, or in untidy packages. They think that it does not pay to be so particular, and do not have time to care for their bees properly. This class is also equally slow and careless about creating a market for honey.

As a rule, a first-class bee-keeper aims particularly to get his honey up in nice shape, has the honey trade of the city, and the merchant and the consumers look to him for honey, if he has enough to supply them.

Now what will the second-class bee-keeper do? He has not enough honey to trouble with it much, and he has no money or credit, or other produce to sell. Now what will he do? He is compelled to sell his honey. He takes it to town and offers it at a price which the merchant sells his, but gets no buyer. He puts the price down, down, down, till he gets some one to buy it. This is generally at a very low price. He then succeeds in getting a crowd around his wagon, and he is doing a large business on cheap honey.

In a day or two a customer calls at a store to buy a pound of honey. He asks the price, and is told 15 cents. "Why," he says, "the other day a man sold a wagon-load at 15 cents per pound." He leaves the store, and soon another customer enters with the same story. Now, if the store-keeper is a commission merchant, he will drop the price down, and the producer will be the loser. If he bought the honey, he will hold the price up until the cheap honey is all consumed, then he will generally get his price. Now, to whom shall we sell, the commission men, or the retailers?

Knoxville,♀ Iowa.

For the American Bee Journal.

Selling the Honey Crop.

O. N. BALDWIN.

We cannot afford to do it, nor is it right to give the commission men free what those in other branches of industry have to pay for. It seems to me that the publishers should publish the correct quotations for honey in all the principal markets, and then charge commission men the same rate they charge others for advertisements.

I went to St. Louis last year and sold honey at 18 cents per pound, when the commission merchant quoted it at from 10 to 12 cents. I also shipped honey to Kansas City, and obtained through the commission merchant 13 to 14 cents per pound. While I was satisfied with the returns, how do I know but what he sold it at 20 cents per pound, and still got his commission out of my 13 to 14 cents? By having the markets reported by disinterested parties, it may be possible to realize a better price; at any rate, I believe it would give better satisfaction.

As regards class legislation, especially for bee-keepers, I do not think that we could do anything that would reward us for the trouble of obtaining it. We, as a class, ought to rejoice that we have already so many privileges, and still our bees are not subject to the tax imposed on other property from which we receive a less proportionate income.

I would like to have a bee-keepers' honey-association to keep up the price of the products of our labor, but you might just as well try to make wheat bring $1, or corn 50 cents a bushel. It all depends upon how badly a man wants a thing and the quantity in market, what he will pay for it. We now get, on an average, 12½ cents per pound for white clover comb honey, and we can buy the best granulated sugar for 6¼ cents per pound; and every thing else, or nearly so, is in proportion. Ought we not be able to produce honey as cheap as the best grades of sugar, by using the same capital, energy and skill in production? The time is not far distant when the apiarist must accomplish the most with the least labor and expense, and be faultless in the way he prepares his packages of honey for market, or his competitors will leave him with the sack to hold, while they are reaping the harvest.

Clarksville,○+ Mo.

☞ The Fremont Progressive Bee-Keepers' Association will hold its semi-annual meeting in conjunction with the Farmers' Institute, at Fremont, Mich., on Feb. 4, 1887. Geo. E. Hilton, *Sec.*

Local Convention Directory.

1887. *Time and place of Meeting.*

Feb. 3.—Wisconsin State, at Madison, Wis.
F. Wilcox, Sec., Mauston, Wis.

Feb. 4.—Fremont Progressive, at Fremont, Mich.
Geo. E. Hilton, Sec., Fremont, Mich.

Feb. 12.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees Flying.—Chas. Smith, Plum Tree,♂ Ind., on Jan. 24, 1886, says:

I have 10 colonies on the summer stands, not packed, but with plenty of honey. Bees have been flying for the last few days. I sold all my honey at 15 cents per pound. I agree with Mr. Joel Helser, as to price of comb honey being 16 cents per pound.

Stormy Weather, etc. — David Jantzi, Crosshill, Ont., on Jan. 15, 1887, writes:

We have had very stormy winter weather so far, and the roads are all blockaded with snow. Last season I had 10 colonies to start with, and I had during the season 27 good swarms, making 37 colonies, of which I have sold 7. The honey season was very short, on account of the drouth; but my bees gathered 850 pounds of honey, 750 pounds of it being extracted, which I sold for 12½ cents per pound in my home market, and the balance being comb honey I sold for 18 cents per pound. Comb honey sells best in this locality. I have packed my bees on the summer stands with flax chaff, and all are in fine condition now.

Reporting Honey Yields, etc.—A. D. Stocking, Almena,o- Mich., on Jan. 24, 1887, writes:

Last spring, at Ligonier, Ind., where my bees are, I had 8 colonies of bees in prime condition. They were wintered on the summer stands, with chaff cushions 2 inches thick over the brood, and the hives raised from the bottom-boards by a rim 2 inches deep put under the hives; the entrances were left open full width, and protected from the storms by leaving a board against the front of the hive. I had no loss. I increased them to 17 colonies; sold 1, and 2 absconded. I obtained 1,020 pounds of honey in one-pound sections from 15 colonies, an average of 68 pounds per colony. The largest amount from any one colony was 121 pounds in one-pound sections; the smallest was 4 pounds in one-pound sections. The hives were heavy with spring stores (I do not extract from the body of the hives), and I prepared 16 colonies for this winter the same as I did for the winter previous, and I have no fears of the outcome, as I have never had 6 per cent. loss in any winter, except 3 years ago when I lost all, which was caused by impure stores, and lack of proper attention in the fall. I think the usual way of reporting the honey yields, as the average per colony spring count, is wrong and misleading. My yield by that rule would be an average of 127½ pounds; whereas I obtained mine from 15 colonies, and I think that the highest and the lowest amount should be given. This is the only true way of reporting.

Will Bee-Keepers Unite?—W. B. Thorne, Glenn,o+ Kans., writes as follows:

Honey producers are no easier to induce to combine than are the farmers who, from past experience, have proven that any extensive organization for mutual protection is very improbable. If the unorganized producers determine on any one industry, supposing it to be profitable, that industry is "fated." The raising of cattle, for instance, was supposed to be among those industries that could never be overdone; yet the past fall has witnessed a collapse of that great industry at Kansas City. Honey, or, in fact, any article of daily consumption, is liable to share the same fate when once it attracts the attention of the masses. As honey producers, can we unite with profit in arresting the downward tendency of the honey trade? I say emphatically, yes! Will they unite? I say, no!

Price of Honey—Reversible Hives.—Fayette Lee, Cokato,⊙ Minn., on Jan. 6, 1887, writes:

I, for one, am not willing to produce honey and let commission men set the price on it. I have produced a great many thousands of pounds of it, and have always set my own price on it. But it looks as if the large producers were trying to drive all the small producers out, and they will do it if honey becomes any lower in price. I say, let comb honey sell for 15 cents a pound, and extracted for 9 cents a pound. This is my price. Every bee-keeper in the United States ought to know what the price of honey should be, and I do not know of any better way then to send extra copies of bee-papers to every subscriber to give to those who do not take them, and let such copies contain the proceedings of the producers' association, when it meets, and what the price of honey shall be. I should like to hear reports from those who have been using reversible hives; whether they get any more honey or not. It is 30° below zero this morning.

Organization for Bee-Keepers.—A. Cox, White Lick,⊙ Ind., writes:

I am in favor of a honey-producers' association, if gotten up in a proper manner. But how to do this, is quite an item. The low price of honey is attributed to a great many causes by different correspondents. There are a great many causes, and we have no right to lay the blame on any one cause in particular. For instance, the man that has a few bees in a fence-corner is not to be blamed for all this, by no means. For in this town the cause is quite different. There has been honey shipped here that was said to be produced in the East, but on a close examination it was found to be the product of a large honey-producer in the West, and shipped to the commissioners of the Eastern cities. He was no fence-corner bee-keeper. How all this can be done with a profit to the bee-keeper is a mystery to me. The conveniences for producing honey in the West must be a great deal better than they are here in Indiana. I would suggest that all the bee-keepers' associations in the United States call a meeting for the purpose of discussing this matter, and send delegates to a national convention, at some central point; then they would be fully prepared to organize a society, if need be. I would further suggest that the new organization be consolidated with the Bee-Keepers' Union, if such a thing could be done. Then the bee-keepers would become a power. Otherwise so many different organizations for the same purpose would amount to nothing.

Results of the Season.—Daniel Whitmer, South Bend,+o Ind., on Jan. 19, 1887, writes:

On Nov. 20, 1885, I placed in the cellar 118 colonies, leaving 62 on the summer stands. All were in excellent condition. I lost one in the cellar, and 11 on the smmer stands, principally by spring dwindling. By uniting I had 150 colonies to begin the season with. The spring was favorable, and they built up to fair working condition. On Monday, the first week in June, 25 swarms issued. They might have done better in surplus gathering had I been at home. The season was fair up to July 15. They stored 53 pounds per colony, spring count—or 7,000 pounds of comb and 1,000 pounds of extracted from unfinished sections. I have now 207 colonies in the cellar in a temperature of 45° the most of the time, and 36 colonies on the summer stands, all having an average of 40 pounds of honey per colony. All are pure Italians except 36 colonies of hybrids. About 10 swarms absconded. I sold 5, and gave 2 to friends.

Preparing Bees for Winter.—L. Reed, Orono,⊙ Mich., on Dec. 23, 1886, writes:

It was so dry here the past season that bees did but little from July 1 till Aug. 15. After the rains came we had a good fall yield. Bees swarmed but little, and they began the winter in splendid condition, strong in bees, and having plenty of honey. There was no "bug juice" the past fall. The colonies that I had expected to lose last winter, came out all right, and built up to strong colonies; some of them stored some surplus. I began last spring with 35 colonies, and increased them to 54, by natural swarming. I sold about 1,000 pounds of honey in one-pound sections at 12½ cents per pound. I put my bees into the cellar on Nov. 15, 1886; the temperature in it has been from 38° to 50°, so far. All of my hives have loose bottom-boards, and on these boards I nail strips 1 inch by 2, just the size of the hive. When I put them into the cellar I invert the bottom-board and place the hive on the strips, which leaves the frames 2 inches from the bottom-board, so all dead bees fall down clear from the frames. When put out I reverse the board, when the hive is clear of dead bees and dirt. In winter I leave a case on the hive filled with woolen cloths or clean rags. I leave the entrances open full width. If a colony is very strong in bees, I give it a little ventilation at the top of the hive. If my bees have good honey they will come through all right prepared in this way.

Good Shipping-Crate.—C. W. Dayton, Bradford,♂ Iowa, writes:

Having purchased considerable honey in crates that hold 12 one-pound sections each, I have become convinced that that size of crate is a decided improvement over all other sizes. With honey in that size of package I have been enabled to make sales of whole crates instead of 1 or 2 sections, as heretofore. I do not confine this to a single instance or several instances, but that has been my experience right and left, far and near, during the whole of the past season. I can sell one-half more honey in a given time, and obtain a better price for it, than with any larger size of crate.

Favorable Winter for White Clover.—W. S. Taggart, Barton,○+ O., on Jan. 20, 1887, says:

I began two years with 4 colonies of bees in boxes, transferred them to Victor hives, and increased them to 6 colonies with which to commence the season of 1886. I bought 4 colonies in box-hives, transferred them, and increased them to 21 colonies by natural swarming. My apiary averaged 82 pounds of comb honey per colony, nearly all in one-pound sections. Bees are wintering well here. They are all wintered on the summer stands. The winter has been favorable for white clover, and of course this looks well for another season.

Swarming—That "Chip."—Dr. C. C. Miller, Marengo,♂ Ills., writes:

On page 42, Mr. Hutchinson asks if I have read Mr. Simmins' book on the prevention of swarming. Now, look here, W. Z., do you call that a square blow struck at that chip? I don't. Let me ask you, have *you* tried Mr. Simmins' plan and succeeded? To answer your question, however, I have read the book and found it interesting, but I have not tried his plan. Neither have I tried the non-swarming hive invented by Jasper Hazen before you were out of dresses, or perhaps before you were born as a bee-keeper; nor any of the non-swarming hives invented since. I am so much of an old fogy that I must be fairly convinced that a thing will be successful before I try it. Of course I believe, and so do you, that a colony may be prevented from swarming, or even from having a desire to swarm; as for example, taking away its brood constantly, so as to keep it a mere nucleus; but what we want is to keep a strong colony booming right through the entire season, working in sections without ever showing any inclination to swarm. That's the chip you're to aim at. Nothing would delight me more, than to come off second best in the fight; and I think it among the possibilities that we may yet master the problem; but for the present I want you to understand, Mr. H., that "that chip" lies in peaceful security on my shoulder!

Full of Information.—O. B. Barrows, Marshalltown,+○ Iowa, on Jan. 22, 1887, writes:

I commenced keeping bees about 15 years ago, but I had a very discouraging time of it for several years. In the fall of 1884 I attended our State and County Fairs, and found I was away behind in apiculture. In January, 1885, I sent for a sample copy of the AMERICAN BEE JOURNAL, and I got more information on modern bee-culture from that one copy than I had gotten in ten years before. I subscribed for it, and in the two years that I have been taking it I have never seen anything that I wanted to conceal from any one; and whether the market reports are published or not, I presume I shall continue to think it the best BEE JOURNAL in the world! It reaches me each Wednesday before noon, and is read with great interest.

Bee-Keeping in Nebraska.—D. M. Imlay, Seward,○ Nebr., on Dec. 22, 1886, writes:

There was only about half a crop of honey in this locality last season, while 25 miles west of here there was a large crop. I began the season with 78 colonies (nearly all in poor condition), increased them to 128, and obtained about 4,000 pounds of extracted honey, 800 pounds of comb honey, and 35 pounds of beeswax. The extracted honey will average about 9 cents per pound, and the comb honey about 15 cents per pound, while beeswax brings 25 cents per pound. I have kept bees since 1881, beginning in a small way. I have advanced a little in the business; but if I could, with my present experience, return and correct my mistakes, I could make $2 where I have made $1. The past was a peculiar season. Local showers during the summer made a very material difference in the honey crop. This is a very poor place to rear queens, as the honey-flow comes in the fall; but we are not bothered with swarming during the honey-flow, as it is so late that the bees begin to prepare for winter, and will not swarm unless they are very strong and have no room to store honey. There is plenty of goldenrod, but our bees seldom notice it; our crop is from heart's-ease, buckwheat, and the late red clover bloom. My bees are in the cellar, and the only trouble seems to be to keep the temperature low enough; it goes up to 50° with only the outside door shut. They make a low hum; should they be perfectly quiet?

[Regulate the temperature of the cellar so as to prevent restlessness.—A "low hum" shows happiness.—ED.]

Bees Removing Brood, etc.—L. M. Foster, Friend,○ Nebr., on Jan. 17, 1887, writes:

Concerning my query (No. 344), I also think that the trouble (bees carrying out brood) was caused by the bees being determined to load the brood-chamber with honey. The colonies mentioned were in 10-frame Langstroth and Simplicity hives, each of the hives having 9 frames almost entirely filled with brood. There was no lack of food, as some of my colonies had already stored several pounds of honey in the surplus boxes. I had 5 colonies, spring count, increased them to 11, and one absconded. I obtained 400 pounds of nice comb honey, notwithstanding the drouth. The most of our honey is obtained from heart's-ease, or as some call it, black-heart. My bees are wintering well out-of-doors, with chaff cushions on the top stories, and a passage over the frames under the cushion.

My Management of Bees.—J. R. Gailey, Avery,♀ Iowa, on Jan. 21, 1887, writes:

My knowledge of bees is drawn mostly from observation and experiment. I used comb frames before the war, and one-pound sections in 1867. I have had the best success with the Langstroth brood-chamber containing from 10 to 16 combs, with division-boards and the bottom-boards clamped on the lid with a 2 or 3 inch rim. (Both can be dispensed with in tiering up the hives in the cellar for winter.) I have supers (with rabbet in the side-board of the hive dispensed with), slatted honey-board, and the hive with an additional story high enough to hold 4¼-inch sections, with a flange of light hoop-iron nailed on the lower outer edge to shut on the hive like a band-box. These hives can be tiered up to any desired height. I put on a super, spread a cloth over it, and as soon as it is pretty well filled with honey take it off, place an empty one in its place, and put it back to be finished. Seven and a half inches is too shallow for caps, as only one case of sections can be placed under it at a time. I consider it important to give room in the honey season, without waiting for all the sections in one case to be finished.

AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the Bee Journal.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the Bee Journal, and will send two or more free of cost to any one who will use them, and try to get up a club.

All New Subscriptions will begin with the year, and until further notice we will send the back numbers from January 1, unless otherwise ordered.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the American Bee Journal must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it, the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result —a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

The Report of the Indianapolis Convention is now published in pamphlet form, uniform with that of last year. It will be sent postpaid for 25 cents to any address.

We have also bound it up with last year's, together with the History of the Society; this we will mail for 40 cents. Or if you send us one *new* subscriber (with one dollar) besides your own renewal, we will present you with a copy by mail.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, **5** cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the Bee Journal. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the Bee Journal to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Dr. Miller's Book, "A Year Among the Bees," and the Bee Journal for one year, we will club for $1.50.

The Western World Guide and Hand Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly Bee Journal for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the American Bee Journal for one year, will be clubbed for $1.25.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey ; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. No demand for extracted, and very little for comb.

BEESWAX.—22c. R. A. BURNETT,
Jan. 19. 161 South Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.

McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.

Jan. 21. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.

Jan. 22. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.

Jan. 22. C.F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.: dark 1-lbs., 10c.: white 2-lbs.. 11@12c. Extracted, 8c. Market dull.

BEESWAX.—25c.

Jan. 14. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.

Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote : Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4¾c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

HONEY.—We quote good to choice extracted at 4½c., and comb honey firm at 8@12c.

BEESWAX.—Active at 18@21c.

Jan. 10. SCHACHT & LEMCKE, 122-124 Davis St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.

Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3¾@4c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels. 4@5.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.

Jan. 19. D. G. TUTT & CO., Commercial St.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices : 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to **60** cents, postpaid. Subscription for one year and the binder for $1.50.

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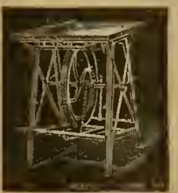

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
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1887.
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CATALOGUE.
1887.

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Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. JAS. J. H. GREGORY, Seed Grower, Marblehead, Mass.

1A6t 7D6t

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51A12t

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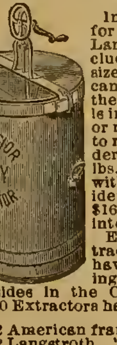

In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

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For 2 American frames,	13x13	inches	........$8 00
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For 3 " "	10x18	"	..........10 00
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For 2 frames of any size,	13x20	"	..........12 00
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923 & 925 West Madison Street, CHICAGO, ILL.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

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923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Th NEW Heddon H've,

We have made arrangements wi ever, oney' inventor by which we shall make and s F Heddon Reversible Hive, both at whol e and retail; nailed and also in the flat.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00.**

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

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We are the introducers of the Jessie Strawberry, and the only firm that can supply plants to the trade. It is the most remarkable new fruit of the age. Send for particulars and colored plate; also for copy of Green's Fruit Grower, and our illustrated Fruit Catalogue.

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You can make money selling our trees, and get your own trees free. Green's Guide to Grape Culture, 25c. Green's Guide to Strawberry Culture, 25 cents. Green's Fruit Grower, 50c. per year, and Green's "How to Propagate and Grow Fruit," 50c, all to one address for 50c. Green's Tree Agent's Guide, 15c. Green's Books, (3) combined with 15 colored plates, gilt cover, 75 cents. Green's Descriptive Catalogue, with 5 colored plates and two back copies of Fruit Grower, 10c. Address,

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If you are in want of Garden, send 10 cts. can be deducted from **SEEDS** or anything for the for above, which the first order.

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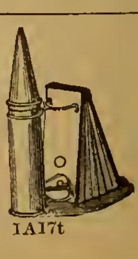

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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Feb. 9, 1887. No. 6.

Locating the Paraffine Combs!—The stupid advocates of the "Wiley lie" about the manufacture of comb from paraffine, filling it with glucose and sealing it over with a "hot iron," are still industriously engaged in trying to find the place where it is said to be manufactured—but each time are foiled in the attempt! Bro. Root, in the last issue of *Gleanings*, gives the result of another "hunt," in the following language:

> A short item appeared in the Pittsburgh *West-End Bulletin*, to the effect that there was an establishment in Pittsburgh making comb honey, etc. Our good friend W. H. Ferguson, of Bloomsdale, O., while in the above city, took the pains to follow it up. The editor of the paper declared there was no mistake about it, and gave the street and number. When our friend got there they said it was a fact, but that it was off somewhere else, up three flights of stairs, and so on. What do you think they found? Why, a man who makes cement and sealing-wax; and it happened that this worthy tradesman also put up very neat little cakes of wax for the sewing-table—just that, and nothing more.

The *persistence* of these scoundrels would be praise-worthy in any laudable undertaking, but when trying to defend that *lie* of Wiley's, by finding an apology for its utterance, is very *disgusting*. Poor fools! they will always have "their labor for their pains!"

◆

The Bee-Lawsuit against Mr. C. C. Richardson, mentioned on page 691 of the BEE JOURNAL for last year, has terminated. The suit was dismissed by the judge. The attorney's fees amount to $20, of which the Union pays one-half and Mr. Richardson the other half.

This is another triumph for the Union, which backed up the defendant in such a way as to show that the pursuit cannot be attacked with impunity.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Rat-Tat-Tat—Rattle the drums! for we have received the following positive Order from a self-appointed Supreme Dictator:

> ROSSVILLE, Jan. 29, 1887.
>
> EDITOR OF AMERICAN BEE JOURNAL:—Stop "bee-legislation" in the BEE JOURNAL. It is no matter for discussion. It is undebatable—unsensible—unnecessary—un-American—tending to anarchy. Now *stop it*, and let "the survival of the fittest" settle the subject forever! M. F. TATMAN.

Isn't that sublime? Who appointed him a dictator to the three hundred thousands of bee-keepers of America? By what authority or law does he decide for hundreds of thousands that the subject shall not be debated? Who appointed him a dictator to issue the Order—"Now stop it"?

The only excuse that can be offered for such sublime assurance is the thought that our would-be dictator is a crank! No one in a *sane* condition would assume the prerogative he so boldly claims! His friends should seek some quiet retreat where he may regain his mental equilibrium!

We have had nothing to say as yet on the merits of the question of "bee-legislation," but when we have anything to communicate we shall not think of asking permission of the would-be Dictator for our doing so. And if our correspondents desire to "discuss" the subject, that fulmination cannot shut them out of the AMERICAN BEE JOURNAL.

◆

The Union Convention at Albany, N. Y., a condensed report of which will be found in this issue of the AMERICAN BEE JOURNAL, was a decided success, and a very harmonious body. The *Bee-Keepers' Magazine* speaks thus of it:

> The convention at Albany was quite a success. There were present bee-keepers from Virginia, Pennsylvania, New Jersey, Vermont, Massachusetts, Ohio, Michigan, and several other States. The one notable feature was the entire absence of any friction between the members—everything moved in such perfect harmony. Under the exceptionally able guiding of President W. E. Clark, not a clash occurred, and every proceeding was carried on with order and decorum. Mr. Clark, to our mind, makes a most capital presiding officer, being impartial, dignified and decided.
>
> There were present on the platform at the time the presidents of four different bee-keepers' associations, viz: New York State, Eastern New York, New Jersey and Eastern and the Philadelphia Association. We do not remember of such a thing having occurred in the annals of bee-keepers' conventions in America. Perhaps our statistical friend, Editor Newman, will correct us, however, on this point.

We have no desire to criticise nor "correct" the *Magazine*, but being called on we will say that there were *four* or more "presidents" on the platform at the Detroit and Indianapolis meetings. At the Cincinnati convention of 1880, there were three editors of bee-papers, five presidents of bee-societies, and three ex-presidents of the society on the platform. We rejoice to notice such harmony, and hope it may long continue.

Concerning another visitor the *Magazine* remarks as follows:

> We had with us at the meeting on the second and third days, Mr. Jas. A. Abbott, of Southall, England, who, up to a late day, was in partnership with his brother in one of the largest bee-keepers' supply business in England, but who is now about to start another house himself. This gentleman is a man of close observation, and when he talks "bee-business" he knows what he is talking about.

The Union has Lost None!—Of all the suits against bee-keeping in the United States, which the National Bee-Keepers' Union have deemed expedient to defend, *not one has been lost!*

The "Freeborn" case in Wisconsin was presented in such a manner, backed up by the Union, that the judge kicked it out of court!

In the "Bohn" case in California, the united resistance of the bee-keepers of the Nation was too much for the fruit-growers—and that trouble, which was proclaimed by a Nebraska apiarist to be "too much for the Union to compete with," is now all conquered! the raisin growers admitting that they were mistaken!

The "Darling" case in Connecticut was dismissed as soon as it was discovered that he was "backed up" by the National Bee-Keepers' Union!

Now, the "Richardson" case in Indiana has been dismissed by the court! This is the "case" which was so badly *misrepresented* at the Indianapolis convention, by an officious neighbor, and it is with *much satisfaction* that we are now able to say that the "Union" was too much for the enemies of the pursuit of bee-keeping!

Several "suits" have been allowed to go by default in justices courts, so that we could "appeal" them, and thus have the decision from the higher courts. This plan has been eminently successful, and productive of good.

The four cases enumerated in the foregoing matter are all, that have been finally decided, and it is a record for every member to feel proud of—**not one case has been decided against the bees!!!**

This shows the value of united action, and the moral weight of the "backing" of the National Bee-Keepers' Union! Cannot all now see that the Union should have thirty thousand members, instead of three hundred!

◆

Catalogues for 1887.—These on our desk are from

Dr. J. P. H. Brown, Augusta, Ga.—18 pages—Apiarian Supplies, Bees, Queens, etc.

J. W. Bittenbender, Knoxville, Iowa—8 pages—Bee-Keepers' Supplies.

John A. Thornton, Lima, Ills.—Bees, Queens, etc.

George Pinney, Evergreen, Wis.—10 pages—Forest Trees and Tree Seeds.

A. C. Nellis, 64 Cortlandt St., New York.—Seeds.

◆

If One has a Good Thing, which the people really need, the more widely he makes it known, the larger will be his sales; he will gain nothing by economizing in this matter, provided he advertises with good judgment.

◆

Just as the forms of this issue of the BEE JOURNAL are ready for the press, we learn that the Canadian bee-lawsuit, mentioned on page 35, has been decided against Mr. Harrison. This was a neighborhood quarrel about the removal of a pig-pen, and bad temper was very evident on all sides. The Canadians raised a fund of $50 to defend the suit, but what action (if any) was taken for its defense, our correspondent does not state.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Bees Absolutely Quiet in Winter.

Query, No. 371.—Ought bees to be absolutely quiet when wintering in the best condition? I have placed some of my colonies in the cellar this winter, for the first time, and I can always hear a gentle hum by placing my ear near the entrance. Is that an alarming condition?—H. C. P.

Not absolutely so.—J. P. H. BROWN.

I should not be alarmed at it.—C. C. MILLER.

This gentle humming is not an objectionable symptom.—W. Z. HUTCHINSON.

The low hum that you hear is not a bad sign.—DADANT & SON.

It is very seldom that bees are "absolutely" quiet. A gentle hum is not an alarming condition.—H. D. CUTTING.

No. Bees always make a gentle humming noise if alive, no matter how quiet.—G. M. DOOLITTLE.

This gentle hum is usually heard when bees are in just that hibernating (?) condition most desirable. You may rest in peace, so long as it is thus.—A. J. COOK.

I have never been able to discover a colony that did not hum more or less. The gentler the hum the better are they enjoying their nap.—C. W. DAYTON.

Quietude is the natural condition of bees while in winter quarters. A low, gentle hum indicates high temperature in the hive. When the temperature falls a little, they will quiet down to perfect silence.—G. W. DEMAREE.

Bees hibernate when wintering in the best condition. In this state they are absolutely quiet as far as the eye can detect, except at feeding times. The imperceptible respiration is accompanied by a faint murmur that is more distinct where many colonies are placed close together, as in a cellar.—G. L. TINKER.

No. Sometimes they make a great deal of noise, and come out in nice condition. Much depends upon what causes them to make that noise. Disease causes restlessness, but restlessness does not always, nor usually, cause disease. Your bees are as quiet as is usual.—JAMES HEDDON.

My own opinion is that the nearer the bees can be kept to an absolute state of quietude, the better they will winter. In practice, a state of "absolute" quietness cannot be maintained. I apprehend, however, that the "gentle hum" spoken of, will be found in every hive, in every winter, and that the same is not evidence at all of unfavorable conditions.—J. E. POND.

No. A "gentle hum" indicates contentment.—THE EDITOR.

Effect of Water in Bee-Cellars.

Query, No. 372.—1. Can a cellar be too dry for wintering bees? If so, can it be too wet? 2. Will a body of water on the floor of a well-cemented cellar increase, or diminish, the moisture of the air in the cellar?—F., Wis.

1. I do not think that it can. 2. It will increase the moisture.—J. P. H. BROWN.

1. Dryness or dampness have less to do with wintering than temperature. If the temperature can be kept from 43° to 47°, I should worry little about the other conditions.—G. M. DOOLITTLE.

I do not know that a cellar can be too dry or too wet. I should suppose that the water in the cellar would make the air more damp, but I may be wrong.—W. Z. HUTCHINSON.

We do not think that it can be too dry, but we think that it can be too wet. A standing body of water, if colder than the cellar, will absorb moisture.—DADANT & SON.

I should prefer a very dry cellar for bees. Yet I have known cellars to have 2 to 3 inches of water and yet the bees came through in good condition. 2. It will increase it.—H. D. CUTTING.

1. If the other conditions are right, I think that bees will winter in spite of humidity. 2. If the air and water are of the same temperature it will have no effect. But make the water the warmest, and saturation of the air will take place.—J. P. H. BROWN.

1. I hardly think so, if ventilation and temperature are all right. 2. I think it can. It depends upon the ventilation. Our cellar with its sub-earth ventilation has water in it all the time, but it is not unpleasantly damp. Some of the pleasantest and sweetest cellars I know of have large cisterns in them.—A. J. COOK.

1. A cellar cannot well be too dry or too wet for bees, if the temperature is suitable. 2. It would increase the humity of the air; but heat and cold has so much to do with the relative humidity that much depends upon the temperature as to the degree of moisture in the air.—G. L. TINKER.

No; moisture will do no harm if the temperature is kept in harmony with it. Water thrown on the floor of my cellar would increase the humidity of the atmosphere therein, because it would soon dry off.—JAMES HEDDON.

1. I think not; bees always generate more or less moisture; I question also, whether it is possible, without using heat, to have a *dry* cellar. 2. Ordinarily it will; much will depend, however, upon other conditions, such as ventilation and warmth. The usual and ordinary effect of the water will be to keep the air warmer, and thus tend somewhat toward making the temperature more equable.—J. E. POND.

1. Different persons hold different theories, but after all, do they really know anything about it? 2. Under some circumstances the water on the floor would certainly increase the moisture, and I can hardly think of any circumstances in which it would diminish it. There have been cases of successful wintering of bees in which a stream of running water in the cellar was believed to be helpful.—C. C. MILLER.

As temperature (not humidity) is the essential point in the cellar wintering of bees, let that be kept at from 45° to 50°.—THE EDITOR.

Extra Combs for Extracting.

Query, No. 373.—The coming season I will work 75 colonies for extracted honey, but I have no extra combs. 1. How shall I proceed to get combs built at the least expense? Should full sheets of foundation be used, or starters only? 2. Should the frames to be filled be placed above or beneath the brood-nest? If below, would there not be less drone comb built?—W. Va.

I should use full sheets of foundation placed beneath the brood-nest.—J. P. H. BROWN.

I use full sheets of foundation placed above the brood-chamber, and I have no trouble with drone comb.—H. D. CUTTING.

In a short and abundant honey-flow foundation is worth $1 per pound. If it is light and continued you might extract often from fewer combs, and gradually work in frames with starters.—C. W. DAYTON.

In my locality I cannot get combs built in the natural way for extracting purposes, without sustaining very great loss in the way of surplus honey. 1. It pays well to employ full sheets of foundation to get a supply of extracting combs. 2. They should be placed above the brood-nest all the time.—G. W. DEMAREE.

I should use comb foundation, and I should not care where the frames were placed. We can secure many frames of comb in the spring before the season opens, by placing foundation right in the brood-chamber—A. J. COOK.

1. In such a case I should use full sheets of foundation, placing them in the upper story when the honey harvest arrived, and raising a frame of brood to this story so as to secure immediate work there. 2. I should place them above.—G. M. DOOLITTLE.

I would use full sheets of foundation. I put it in above; you might try both ways. I would advise you not to prepare to produce extracted honey, but to work for comb honey, unless most of your surplus crop is dark.—JAMES HEDDON.

1. I do not know. The higher the price you get for honey, the more you can afford to use foundation. I think that there is more inducement to use foundation where the honey-flow is profuse and of short duration, than

during a long-continued and moderate flow. 2. I think that I would place them above.—C. C. MILLER.

I fear there would not be time to get a full set of combs built before the harvest, without using foundation. I may be mistaken. Some recent experiments lead me to hope that I am. It is my opinion that comb built under the brood-nest in the spring would be at once filled with brood, and whether drone comb would be built would probably depend upon the age of the queen and the amount of drone comb already possessed.—W. Z. HUTCHINSON.

1. I would use full sheets of foundation. 2. As soon as the colony is strong enough to build extra combs, I would place frames of foundation between the frames of brood, and add the frames as fast as they could be used. The foundation would not be wired. The super should be of the same size as the body of the hive, and the frames interchangeable. Use a queen-excluder between the cases, and continue to add frames below, and raise up the frames of brood until as many combs as needed are built.—G. L. TINKER.

1. This is a mooted question. I apprehend, however, that it will depend upon location. Mr. Hutchinson favors the "starter" idea; I have found full sheets to work better in my own case. Test the matter and report. 2. Place them above by all means; at least that is my own opinion. I do not think that any difference would be found in the amount of drone comb built, whether placed above or below.—J. E. POND.

Use full sheets of comb foundation in or above the brood-chamber.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named: ♁ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⚨ northwest: ⚩ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

The Honey-Producers' Association.

M. M. BALDRIDGE.

Is there anything *practical* in the idea of an association of honey-producers to fix and control the prices on honey? Mr. Caldwell, on page 808 of the BEE JOURNAL for 1886, says "*No*, most emphatically." And why? Because "honey is one of the products of the farm, and, as such, it must be placed upon the market in precisely the same manner as any other product."

Well, let us see about this. Butter, I believe, is also one of the products of the farm. Now, is not the price of gilt-edge butter fixed and controlled to a great extent, by an association of butter producers? If you do not think so, then study the proceedings of the butter producers, who, through their representatives, meet every Monday in Elgin, in this Fox river valley, and be convinced. This association not only regulates the price on all the butter made in factories, by its members, but likewise, to a great extent, that made by the farmers themselves—they who do not patronize the factory system. And how do we know this? Because all the dairy butter sold to consumers, in this Fox river valley, and elsewhere wherever these factories exist, goes up or down in price, according to grade, in perfect harmony with that of factory butter as given from week to week by the Elgin Board of Trade. Well, what is the present price of factory-made butter? For Monday, Dec. 20, the price per pound, at wholesale, as given officially, was 30½ cents, and that for Monday, Dec. 27, was 32 cents. And was much butter sold at such "extravagant" prices? I should say, yes. For Monday, Dec. 20, the sales, as given officially, were 68,794 pounds, and for Dec. 27, the sales aggregated 232,532 pounds!

Now, if butter producers can, through their representatives, fix and control the price of their farm product, why cannot honey producers, through their representatives, do likewise on gilt-edge honey? I say they can if they *will* it so. Yes, and they can do this with far less friction, and more successfully than butter producers. And why? Because the supply of butter never ceases—being produced every day in the year. Not so with honey; for when we once ascertain the supply of honey, at the close of each honey harvest, we are then assured that no more can be produced, with rare exceptions, until there comes another honey harvest. Then, by knowing the supply, ascertained mainly through the members of the honey-producers' association, and the probable demand, its committee can approximate pretty closely to the proper prices to fix upon it in the fall of the year, and without a weekly meeting as butter demands.

But, says Mr. C., we must place our honey "on the market" in precisely the same way that we do any other farm product, and not as you desire, to-wit: In the hands of retailers to be sold by them at fixed prices and *only on* commission.

Let us investigate this *must* idea. Because our parents and grand-parents used straw hives, brimstoned their bees, and took their honey to market in wash-tubs, is that any reason that we *must* do likewise? And because farmers generally sell their produce to middle men in order to reach consumers, is that any reason that honey producers *must* do so? As yet I have seen and read nothing that convinces me that honey producers cannot organize and agree among themselves to adopt new methods of dealing with consumers. It so happens that we live in an age of progression, and that we have the power, if we will it so, to adopt new methods of doing business that might appear to some to be impossible and impracticable innovations. But we do not always know what we can do until we try. Then let us try, for awhile at least, what appears to me, and to many others, to be a very simple, practical, and common-sense method of disposing of our honey, to-wit: Have it sold at *our* prices to consumers, through retail agents, and by them *only* on commission.

"I am sorry," says Mr. C., that our honey "has gone down in price as it has this season." Well, whose fault is it? Mainly the fault of the honey producers! If they will not organize —if they will not pull together, if they will not quit flooding our large cities with honey, and if they will not stop patronizing the wholesale commission men, then they have no one to blame but themselves.

Mr. C. attributes the present low prices on honey to the good honey season; "one of the best" he has seen in his "14 years experience." Now, because the honey crop has been extra good perhaps, in his neighborhood, or in his county, or in his State, Mr. C. evidently infers that the honey yield has also been extra good throughout the United States! Honey producers should remember that the general crop of honey was not last year any above the average, and that when it is extra good in one locality, or in several localities, that there are still many other localities where it may be poor or be below the average. This has generally been the case, in the past, and will undoubtedly be the case in the future.

"Most bee-keepers," says Mr. C., "when their product is ready for the market, want the money for it, or its equivalent." That is true, but do they now get what they want? Do bee-keepers now get their money when they ship their product to the wholesale commission men? Not often, I can assure you. Then if not, why bring up this as an objection to an association of honey producers whose chief purpose is to fix a fair, honest price on honey to consumers based on supply and demand, and to hasten the disposition of it by having it placed and kept on sale by retailers everywhere and at all times. When every proper place for retailing honey in country, village, and city, is kept properly supplied with choice honey at all times, and at a reasonable fixed price, why should not the entire crop be disposed of each year even more readily than now?

"Now suppose," says Mr. C., that "the crop has been a good one," and the price of choice comb honey "is placed at 20 cents per pound, and the market price is only 10 cents." What is to be done? Why, my dear sir, you are supposing something that would not exist! How could "the market price" on honey be 10 cents when the universal price, in every State in the Union, is fixed by the honey producers of the United States at 20 cents?

And "what are we going to do," says Mr. C., "with the farmers and small honey producers?" Now, do not worry over that problem. The farmers and small producers will not be slow in finding out that the large producers have adopted new tactics, and have quit fooling their honey away for less than its true value. They will not then be so anxious to hasten to market and sell the "stuff" at any price as now. The trouble at present is, they are afraid the large producers will flood the markets, and thereby cause low prices, and this simply makes them try to anticipate such a state of things. Another thing: Unless their honey is in small packages, of good quality, and in good condition, it will do no more harm to the wide-awake honey producer than the poor or unsightly butter made by farmers does to the gilt-edge commodity made in factories. But when the farmer and small producer adopts the one-comb sections, and has his honey in proper condition for the retail trade, and we find that their prices will do harm to large producers, then we had better *buy* their product. We can then place it upon the market and have it sold for us, by and through our agents, and at a *profit*.

Mr. C. seems to be afraid that the farmers may turn their attention to rearing bees and producing honey when they find they can sell the honey at good prices, and this will "crowd an already overstocked market." Such as his perhaps may be. This he thinks will make matters worse than they are at present. Now the overstocking of the markets with honey seems to be a great bug-bear to many, but not so to me. I have been too long in the honey trade to have any such fears. I do not believe that we can very well overstock the markets of the United States with choice comb honey, in case we distribute it properly, and see that it is kept on sale and in sight at all times, and in a presentable shape. The chief trouble at present is, as the Editor says, *unequal distribution*—coupled with the fact that the majority of retailers are entirely out of it nearly one-half of the time.

"There is," says Mr. C., "but one practical" way to accomplish "the desired end," and that is for a few rich bee-keepers to form a syndicate, buy all the honey, and make a "corner" on it. No, sir, we want no "corner" on honey, in the sense he indicates. Nor do we need a Vanderbilt. When our large honey producers once make up their minds to organize and pull in one direction, there will then be members enough in each and every honey-producing locality to buy out the mischief-makers therein, or to report such to head-quarters, when a way will be provided for protecting its members everywhere. I do not apprehend much trouble in that direction—still I may be mistaken. Suppose we give the plan a trial and find out! Reader, what say you?

St. Charles, ♁ Ills.

All New Subscriptions will begin with the year, and until further notice we will send the back numbers from January 1, unless otherwise ordered.

For the American Bee Journal.

Northern Illinois Convention.

C. M. HOLLINGSWORTH.

The regular annual meeting of the Northern Illinois Bee-Keepers' Association was held at Rockford, Ills., on Jan. 18 and 19, 1887, and the writer was appointed to prepare for the BEE JOURNAL a summary of the discussions on topics of general interest. Dr. C. C. Miller was present, and was constantly called upon for his views and experiences, which he gave in an entertaining and instructive manner.

BEES AND PLANTS.

Mr. A. J. Swezey first read a well-prepared essay on the agency of bees and other insects in the fertilization and cross-fertilization of plants. Mr. S., who is a fruit-grower, had formerly believed that bees do some harm to fruit-growers, without being in any way beneficial. But investigation of the subject by reading and observation had convinced him that the harm they do is very trifling compared with the good they do to the fruit interests.

Dr. Miller asked if there was any plant which was known to depend solely on the visits of the hive-bee for its fertility.

Mr. Hollingsworth cited Darwin's experiments with white clover. In one case a number of heads that had been protected by a net produced but few seeds, and in another case, no seeds; while heads outside the net, in both cases, which bees had been seen to visit, seeded abundantly—bees being the only insects mentioned by Darwin as having been seen on the plants. But experiment has also shown that, even with plants which are capable of self-fertilization, the crossing of one individual with another by the agency of insects is of great benefit, causing them to produce more and better seed, larger and sounder fruit, and more vigorous plants in the succeeding generation.

Dr. Miller said that he felt sure that even bee-keepers themselves were not fully aware of the importance of the office which bees perform in this way. If it is a fact that white clover depends as much upon the presence of hive-bees as red clover does upon the presence of bumble-bees for the production of seed, the fact is of the first importance to farmers and dairymen. To take away the bees would be to take away the white clover from their pasture fields.

ITALIAN VS. BLACK BEES.

It was admitted that the black or German bees go more readily into the sections and produce a fancier article of comb honey. But Mr. Lee thought that they carried too much of the honey into the supers, leaving the brood-chamber poorly supplied for winter. He preferred to keep Italians only, if for nothing else, on account of their better disposition.

President Whittlesey said that the Italians would gather the most honey in a poor season.

Dr. Miller, without attempting to establish or maintain any particular strain of bees, makes a practice of buying, each year, one of the best imported Italian queens that can be had, thus constantly securing the advantage of fresh blood, and the farther advantage of pure blood, if there is such a thing in bees.

MARKETING AND SHIPPING HONEY.

Mr. Highbarger had this season sold 5,000 pounds near his home, by taking it around in a wagon through the country, and to the nearest villages. He sold comb honey at from 10 to 12 cents, and extracted at 8 cents per pound. Mr. Hollingsworth, in the village of Winnebago, had, by advertising with postal cards, sold 1,500 pounds at the apiary, besides 600 pounds at the village stores, which was a large increase over the home sales of last year.

Dr. Miller discovered a few years ago that commission men in the large cities made a practice of under-quoting the market, so that their customers would be the better pleased with the price obtained for shipment. This often had the effect of fixing the price in the country markets below what it should be. He further showed that some producers make the mistake of always putting the local price at the price in the large markets less the cost of shipment to those markets. But in localities where there is a deficiency, the local price should be the city price plus the cost of shipment. The idea that producers could combine to fix the general price of honey met with no support whatever.

With regard to the shipment of comb honey, the views brought out were, that when sent by express it is apt to be damaged by hurried and careless handling; when sent by freight and transferred on the way, it is liable to suffer from improper packing in the car by those who make the transfer; and when properly loaded and sent by freight without transfer, there is very little risk. Thus a large shipment can be sent more safely than a small one.

In an essay on "Bee-Keeping as a Pursuit," Mr. Fuller said that he had only followed it in connection with farming, but considered it, when well-managed, as profitable as other pursuits.

HIVE BOTTOM-BOARDS.

A distinction was made between loose bottom-boards and those that are not loose but movable. A vote showed a large majority against having the bottom-board nailed on the hive. In moving hives with loose bottom-boards, Mr. Gammon used a large **U**-shaped iron clamp with a set-screw at one end to clamp the hive and bottom together. Mr. Rice used two ropes and sticks and a wedge for the same purpose.

Mr. Hollingsworth had Langstroth hives with bottom-boards that were removable, but not loose. The bottom of the portico is nailed on like the top, and the two give the hive stiffness. In its back edge are two small auger holes to receive projecting headless-nails driven into the front edge of the main bottom; and two long wooden buttons with square notches on the back end of the hive, hook on projecting nails in the back end of the bottom-board.

REVERSIBLE HIVES.

Dr. Miller had tried an invertible hive last summer. It had some good points, but with all his inverting and re-inverting he failed to make the bees understand what was wanted of them; they would not work in the sections.

Mr. Gammon had last summer tried a sectional hive; but when he undertook, by interchanging the parts, to have the honey carried from the brood-department into the sections, he failed entirely. He had never had a hive become so clogged with honey to the restriction of the queen. He had also fitted a set of ordinary frames for reversing. When he first reversed them, he found one capped queen-cell, which he removed, and others started. A day or two later he found the bees had destroyed the latter, and was much elated, thinking that he had found an easy preventive of swarming. But about the time the first queen-cell should have hatched, out they went, and they kept on swarming, and at last killed their own queen.

ALSIKE CLOVER.

From ten years' experience, Mr. Lewis pronounced this one of the very best grasses for hay and pasture, especially on low ground. For hay it should be sowed with timothy, which helps to hold it up. Sow 1 bushel of seed to 16 acres. It makes but one crop of hay, does not turn dark in curing, and stock eat it up clean. It will re-seed itself indefinitely.

Dr. Miller had not succeeded in getting it to grow, and it did not re-seed itself for him.

Both Mr. Lewis and Mr. Highbarger gave good reports of the Alsike as a honey-plant. They thought that it was better than white clover, and less affected by drouth.

The President of the association for the ensuing year is Mr. L. Highbarger, of Adaline, Ills.; and the Secretary is Mr. D. A. Fuller, of Cherry Valley, Ills.

Winnebago, ♁ Ills.

For the American Bee Journal.

Bees in Winter Quarters.

V. W. CLOUGH.

Winter quarters should exclude light, and from the time they are put away in the fall until removed in the spring, the room should remain dark. This will keep them quiet, even during warm days. After being prepared for winter, I do not want my bees to have any flight.

The repository should be so constructed that the variations of temperature will be gradual. Sudden changes should be avoided. Cold weather is not injurious to bees, but the mischief lies in the rapid change of temperature. Any old shed, coal-house, or in fact any building that can be darkened answers the purpose. Noise does not disturb the bees, if the hives are not jarred.

To those who have large numbers of colonies I recommend for winter quarters a building on the plan of an ice-house — the walls being packed with sawdust, perfectly air-tight at the bottom, with a small ventilator at the top, without any light-holes as windows, so that when the door is closed the bees will be in a perfectly dark room.

Geneseo, ☌ Ills.

Vermont Convention.

The Vermont Bee-Keepers' Association met at Burlington, Vt., on Jan. 13, 1887. President P. C. Abbott occupied the chair, and congratulated the association on having started from the humble position of a small Addison county association and risen to the dignity of a State organization, so that every bee-keeper in the State might have the benefit of associated effort and experience.

The first essay read was by J. H. Larabee, on "In Embryo," which contained valuable advice, intended especially for beginners in apiculture.

A. E. Manum discussed the subject of "The brood-chamber from April 1 to Aug. 1," giving his methods of strengthening weak colonies in the spring, preparations for the collection of surplus honey, and extending to the close of the honey harvest, preparation for winter, etc. The subject was fully discussed.

"Cellar *vs.* out-door wintering" was the subject of a discussion, led by Dr. F. Bond, of Cornwall, who favored cellar wintering, although he thought it best to be governed by circumstances. His apiary was located in a windy place, so that he used a cellar. It was well to economize heat to save honey. He put his colonies in the cellar just after the ground froze, and took them out about April 10, or when the weather was warm enough for the bees to work. He did not pay much attention to ventilation.

F. M. Wright, of Enosburgh, found it necessary to ventilate, and recommended upward ventilation from the floor. He did not put his bees out until about the last of April. He placed a quilt over the frames and raised the hive off from the bottom-board.

The question was further discussed by Messrs. Leonard, Manum and Crane, the weight of opinion being in favor of wintering in the cellar. Mr. Crane gave his views on the condition of the temperature as governing the amount of moisture held by the atmosphere. A cubic foot of air at 10° would hold in suspense about one-fifth of a grain of water and a rise in the temperature will largely increase the amount of moisture that will be held.

Adjourned until evening.

"Shall we feed sugar or honey when hives are deficient in winter stores?" was discussed by Messrs. Crane, Bond, Leonard, Davis and others, the weight of opinion favoring honey as the best and cheapest.

Miss M. A. Douglas, of Shoreham, read an essay on "How shall we market our honey?" She admitted that she was undecided whether it was better to sell individually or through an association. She was strongly in favor, however, of placing a first-class article on the market in preference to adapting the quality of the supply to the demand. This essay took the first prize, and will be published later.

Mr. Leonard led the discussion on "What is the best method of re-queening colonies?" From the best colonies he took sealed queen-cells in the swarming season, and put them into a cage in the middle of a queenless colony to hatch. A frame with divisions both ways covered on one side with wire cloth, and on the other with a board or slats was used for this purpose. He introduced the queens into the hives in an introducing cage.

Mr. Manum favored the introduction of fertile queens, which he placed in a cage over a frame of unsealed honey and unhatched bees. He then cut a hole in the frame and placed it in the colony, and the bees would work their way through to the queen. Sometimes the bees would seal the hole up, when the hatching bees and queen could feed on the unsealed honey, and the queens could lay in the cells deserted by the young bees. The discussion was continued by Messrs. Holmes, Hall and others.

Adjourned until 9 a.m.

The first business of the second day was the report of the Secretary, which showed that the expense of the present convention amounted to $13.27, of which $3 had been received. The Treasurer's report showed $7.27 in the treasury, leaving a deficiency of $3. The above reports were accepted and adopted, and a contribution taken at the time was sufficient to defray all expenses and leave a balance in the Treasurer's hands.

The following were elected officers of the association for the ensuing year: President, P. C. Abbot, of Essex; Vice-Presidents, F. M. Wright, of Enosburgh; D. S. Hall, of South Cabot; J. E. Crane, of Middlebury; Secretary, R. H. Holmes, of Shoreham; Treasurer, J. E. Crane, of Middlebury.

An essay by J. H. Martin, of Hartford, N. Y., entitled "The exhibition of honey at the county fairs," was read by the Secretary. He noticed the fact that the eastern bee-keeper finds a sharp competitor in the western producer, as there they have a longer honey-flow and a cheaper mode of living, so that they can put their crop on our eastern markets at what seems to us ruinously low prices; he thought we should advertise by exhibiting at our county fairs, and push our business with the same enterprise that the dry-goods merchant does his, and, in order to maintain living prices, high-pressure methods would have to be resorted to.

E. O. Tuttle, of Bristol, presented the subject of "How to conduct conventions," etc.

A. E. Manum presented the claims of the Chapman honey-plant.

Prof. W. W. Cooke, the State chemist, presented a valuable essay on "Honey-production by plants."

After the adoption of some resolutions, the convention adjourned to meet at the call of the executive committee.

* * *

Union Convention at Albany, N. Y.

The New York State, the Eastern New York, and the New Jersey and Eastern Bee-Keepers' Associations convened at Albany, N. Y., on Jan. 11, 1887, with President Clark in the chair. After the routine business, an essay by C. M. Goodspeed was read on

ALSIKE CLOVER AS A HONEY-PLANT.

He said that Alsike comes in before basswood, and is in its prime by July 10. It blossoms very freely, and yields more honey than white clover, and as much as basswood. He esteemed it next to basswood. The amount of Alsike honey in his whole crop was variable; sometimes all the white honey was tinged with Alsike; at other times only a portion of the lower part would be. As feed for stock there was no better. His first crop was sowed late, and wet in curing, yet his cattle ate it in preference to his best-cured hay. It should be sowed with other grasses, and cut late. It seeds rather poorly, and does not do well on light soil, but on moist land there is an immense yield of rich fodder and fine honey.

A. I. Root had eight acres of Alsike on rather dry soil near Columbus, and from it obtained a rich crop of honey when his neighbors had none. It makes fine forage, especially for milch cows, and a small amount goes a great way. As pasture it is excellent, increasing the flow of milk.

John Aspinwall had seen it growing in St. Lawrence county, and was told by the farmers that it did better than other grasses.

T. F. Bingham said it was much raised for sheep in his State, and to some extent for cows. He had fed it to three horses, and they did better on Alsike and a little grain than on the best timothy or herds-grass and more grain. For bees he preferred it to either white or red clover.

H. N. Waters had raised it for 10 or 12 years, and found it succeeded best on wet soil.

L. C. Root said that good farmers like Alsike because it attracts the bees, and so a more perfect seeding is obtained. A farmer told him that his cattle would eat weather-stained Alsike in preference to his brightest and best-cured hay. He had secured honey from his clover by the ton, and it cannot be surpassed; the flavor is of the finest—better than that from basswood, though not as white. In Herkimer county it grows by the roadside as common as white clover. On dry soils it will not last long, but on moist it becomes permanent. In growing Alsike, the interests of farmer and bee-keeper were identical.

R. Bacon said that farmers near Oneida Lake were growing Alsike to a large extent. Their subsoil was clay. His honey had been greatly improved by Alsike.

Secretary Knickerbocker said the yield was from two to three tons per acre.

M. D. West sowed two acres to Alsike, with one-third timothy. The hay was as described, and had a remarkably rich odor when put in the barn. The Alsike remained in land three years. The bees did not work upon it. Afterward he saw bees on roadside Alsike.

A member said that Alsike secreted more honey on light soils than on heavy. Five years ago he persuaded a number of farmers to try Alsike. The store-keeper was then selling 15 bags of red clover seed. Last year he sold 20 of Alsike and 4 bags of red clover.

President W. E. Clark sowed a piece, 12 years ago, to Alsike and timothy. Had cut good crops every year, and that of last year was the best of all. Last spring, when other grasses were heaved, Alsike was not, and after rolling, it was a perfect mat. Cut it July 22, and the bees worked on the aftermath until October.

Hiram Chapman spoke at length on the honey qualities of a perennial, known as *Echinops sphærocephalus*, or the "Hedge-hog-plant," which is fully described on page 28 of the BEE JOURNAL.

RENDERING OLD COMB INTO WAX.

Ira Barber uses a large kettle, holding 25 pails of water, and melts up the old comb from 20 to 25 hives at once, putting in only a few combs at a time; keeps a good fire, but not to boil; takes out with an 8x10 inch basket; strains as fast as dipped, and cools in large dishes.

A. I. Root said the solar wax extractor was for small bits of wax thrown in from time to time and melted by the heat of the sun. If thrown in each day there would be no accumulation of rubbish. Old, hard combs were tried, the thermometer run up to boiling point, and all the wax taken out. It will work in January under cover.

COMMISSION MEN.

An essay by C. F. Muth was read. Mr. M. is one of the largest dealers in honey at the West, and a practical bee-keeper. He regarded the middle man as a necessity, a benefactor to the producer, and not a leech, working up a demand for bee-products which the producer usually had not time for, and often not the ability. Their interests are sympathetic, and they should be in full agreement.

A. I. Root said that some men could retail their honey profitably, while others could not. The latter need the middle men. He said that Mr. Muth had had great success in selling honey, and was honorable in his dealings.

R. Bacon said that the market was injured by small growers, who trade off their honey early in the season for what the store-keeper will pay, and then this price is used to beat down the larger growers.

J. Aspinwall said that the market quotations for honey were wrong, in that the large dealers' figures govern the small sales.

H. Segelken said that the price of honey was governed by the price of other sweets. When the latter recover from their depression, honey will also improve.

A. I. Root said we must educate the young bee-keeper in marketing his products. He often bought up the small lots to prevent their depressing the market, selling them afterwards at a slight advance, or even at the same figure, to a customer who wanted a cheaper article, and holding his price on his best goods. Had sold some of these lots at 15 to 18 cents. We need better acquaintance with each other, and better education in business methods.

MARKETING HONEY.

H. R. Wright, a wholesale dealer of Albany, said that there was an over-production of honey because it had not yet become a staple article. There was a great need of a uniform style of comb and package. The pound comb was too large for this market, a ¾-pound comb being enough for an average family at one time, and he favored selling by the comb instead of by the pound. A package that could be sold at 10 cents would be in steady demand. The several hundred styles of boxes and cases interfere with quick sales. He showed a sample of a box that he preferred—a plain case 4x5¼ inches, holding 11 ounces. The oblong is more salable than the square, and people do not wish to pay for extra wood or glass. As the selling season is before the holidays, glass is not needed, unless the honey is to be carried over. He urged the convention to adopt a uniform package. The odd styles had to be sold separately and slowly. He thought extracted honey was improperly named. Liquid honey was a better term. The public associated the word with other "extracts" of commerce, in which there is often adulteration.

L. C. Root said Mr. Wright's talk was another evidence that when we try to help others, we always help ourselves. We were getting at facts which would help both producer, dealer and consumer. It was evident that our markets were far apart. Mr. Wright was the first man he had heard advocate unglazed boxes. In New York they require them glazed, and prefer one and two-pound sizes.

Thomas Pierce, of Gansevoort, and several others, thought sales should be by weight and not by piece. Buyers were used to the pound method, and would expect a given weight in the small packages.

Mr. Wright explained that there was no deception in selling by the comb. People bought the small combs as they did canned goods, and understood it. The weight of honey in combs was variable, and the so-called one and two pound boxes would not run evenly.

A. I. Root said that this discussion was one of the finest features of the convention. As the introducer of the one-pound package, he well remembered the opposition it encountered from dealers and others, but that was overcome. In managing a general store, he had found 10-cent packages and articles very salable and profitable, even at small margin; and there was no reason why the 10-cent honey package should not be equally popular.

J. A. Abbott, of England, said the sales there were in proportion of 1,000 one-pound to 300 two-pound boxes.

DEPRESSION IN THE HONEY MARKET.

L. C. Root said: In early days when the five to ten-pound boxes were in use, the honey was well sealed and of better character than that produced by the new methods. But they could not be divided without waste and trouble. When the single comb came into use consumers were willing to pay for glass on each section. Then bee-keepers got enthusiastic about extracting honey by centrifugal force. But gradually the price of the latter went down because of inferior quality and adulteration. Honey handled in large cities by unskilled persons has hurt the market, and we have failed to secure the attendance and co-operation of dealers at our meetings. The cost of production must be reduced and better packages devised. Liquid honey must be shipped in sealed packages; combs perfectly capped and sealed.

J. W. Porter laid the chief cause of depression in general, as well as that in the honey market, to limited coinage, sustaining his point with many financial and historical facts.

R. Bacon said our people were not educated in honey-eating; not one in twenty uses it. If every person would consume but a pound a year, the demand could not be supplied. Strikes were making a great difference in our sales; the thousands out of work have no money to buy honey or anything else.

RELATIVE VALUE OF EXTRACTED HONEY.

An essay by Dadant & Son was read. As compared with comb honey, the extracted takes the lead for use as a syrup on cakes, etc., and is more in general use than the comb. The beauty of the latter has kept up the price. Where dark honey abounds the extracted is more used. Would rather produce extracted at 6 cents than comb honey at 12 cents.

BEE-KEEPING IN THE FUTURE.

An essay by A. E. Manum was read. Fifteen years ago one ton of honey was a large shipment for a bee-keeper; now a carload is not noticed. Fifteen years ago the price was 30 cents a pound; now it is 15 cents, and likely to go still lower. But as an offset, we have an increase of consumption and a lessening of the cost of production.

We must become specialists; one devote himself to comb, another to extracted, another to brood-rearing. In this way failure will be reduced to a minimum, and the future will depend upon the amount of brain power exerted.

L. C. Root said that economy was the word for the hour, even though the most economical people of the world are refused a place on this continent. Bee-keepers are restive because they have to sell low. Luck is a good word when *p* is put before it.

VENTILATING BEE-CELLARS.

L. C. Root said that pure air was a necessity, but if let in through tubes it produced disturbance. He preferred to withdraw the impure air, and did it by pipes attached to the stove-pipe. The colder air *will* press in whether there are ventilators or not.

R. Bacon's first ventilators were of plank nailed together, which brought in air from the outside. Next he used pipes carried under ground 100 feet. Now he makes his walls as tight as possible, and has closed up the sub-earth air-pipes, using a 5-inch pipe to conduct the impure air off. He finds a strong pressure of air in this pipe. He keeps the temperature at about 40°; hives are set close, with inch holes in the bottom-board. He has 80 hives in a space of 10x17 feet.

Mr. Adams, of Troy, has lost many bees, and does not use cellars any more. Has lately built a house costing $300. The room above is only clap-boarded; that below is of brick, plastered; heats with a stove, and bees are wintering well. Put them in Nov. 13, and has not had over a quart of dead ones. Bees need more ventilation than they now get. He gives one-inch holes to hives. The proper temperature is 50°, which will drop to 40° at night.

OUTLOOK OF BEE-KEEPING.

L. C. Root—The trouble with our business is *under*-consumption, not *over*-production. In the future honey can and will compete successfully with all other sweets.

J. H. Martin read some census statistics showing the annual production of butter to be 107,873,000 pounds; maple sugar, 9,272,000; eggs, 3,000,000, and *honey*, 1,149,000 pounds—a mere taste if fully distributed. If the producers of each county would combine and put their products on the home market, there would be none left for export.

F. L. Smith said: We are behind the times. When I was at Toronto, three years ago, I saw over fifty tons of honey on exhibition. Who has seen *two* tons at any of our State or county fairs? ("Twenty pounds at the Utica Sate Fair," remarked L. C. Root.) Let us stop talking about low prices, educate the people and educate ourselves.

BEES IN LAW.

A member said that his neighbor, a retired banker, had brought a law-suit against him for not removing his bees. The distance was 85 feet. The neighbor on the other side (distant 75 feet) was not troubled. He has 145 colonies, but the banker claims that one colony is as bad as one hundred.

Mr. West had hives in a neighbor's mowing field, and he used to mow around the hives, until the neighbor himself brought his team after sundown and cut it. He also helped his neighbor put up the hay.

L. C. Root would avoid all litigation if possible. Would show objectors the necessity of the business, and would rent their land if it could be had.

F. L. Smith once had a similar trouble with a neighbor; but the neighbor had a daughter and he had a son, and they settled the whole thing so satisfactory that he and his neighbor had been good friends ever since.

The report of the committee on exhibits was severely criticized because it passed over all patented articles, and the meeting sent it back to the committee for correction.

The officers for the ensuing year are: President, W. E. Clark, of Oriskany; Vice-President, Ira Barber, of De Kalb Junction; Secretary, Geo. H. Knickerbocker, of Pine Plains; Treasurer, I. L. Scofield, Chenango Bridge.

Adjourned to meet at Utica, in 1888.

Colorado State Convention.

The State association met at Denver on Jan. 17, 1887.

The society was reorganized, a new constitution and by-laws adopted, and the Secretary ordered to take steps for incorporation.

On the Secretary's list there are over 200 bee-keepers who own 3,500 colonies of bees. He thinks there are over 6,000 colonies in the State, owned by 500 bee-keepers. Two Greeley men have 150, and sell over 12,000 pounds of honey annually.

The following officers were elected: President, Dr. D. W. King, Boulder; Vice-President, at large, E. Millison, Denver; Secretary, S. C. W. Shiff, Denver; Treasurer, William Davis, Denver.

County Vice-Presidents: W. L. Porter, Weld; V. De Vinney, Jefferson; W. K. Sinton, El Paso; C. C. Lounsbury, Larimer; G. W. Swink, Bent; D. S. Grimes, Arapahoe; W. E. Pabor, Mesa; E. J. Post, Huerfano; Miss Matie Sternberg, Boulder.

There was considerable discussion over the enemies of bees. Toads were considered the worst. The President said he had experimented with them; he had taken the toads and marked them so that he should know them if they returned. These toads were carried across a creek 1,000 feet away and 15 feet wide, yet in a short time they had returned. It was best to have the hive a few inches above the ground, with a sloping board, so that they could get up to it on returning home at times when they could not fly well.

Adjourned to March 3, 1887.

☞ The next meeting of the Hardin County Bee-Keepers' Association will be held in Eldora, Iowa, on Feb. 12, 1887, at G. W. Ward's office, at 10 a.m. Our monthly meetings are very interesting, and we hope for a large attendance.

J. W. BUCHANAN, *Sec.*

Local Convention Directory.

1887. *Time and place of Meeting.*

Feb. 12.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Mar. 3, 4.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Working up Home Markets.—J. H. Martin, Hartford,o+ N. Y., says:

It seems to me that bee-keepers are away behind other trades in their methods of pushing their products upon the market. If honey goes begging for a market, it is because too many adopt the sit-down-and-do-nothing policy. If bee-keepers would commence with their county fairs, and work them up thoroughly, and then after the fairs work up every town near them, there would be but little honey to be sent to commission men. I think that I know about this, for I speak from experience.

Bees in Splendid Condition.—S. Valentine & Sons, Hagerstown,⊸Md., on Jan. 24, 1887, write:

It now has been nearly 3 months that our bees have been without a flight, but on Saturday, Jan. 23, the weather was pleasant, and the bees had a good flight. On Sunday morning it continued pleasant and they were out early. Through the day the mercury rose to 62°, and the bees had a splendid opportunity to clean up their hives; they made good use of it, and were ready for gathering before the day was past. Bees have wintered nicely so far; in fact we never saw them in better condition. Colonies have lost very few bees since they were prepared for winter, and the hives seem as clean and sweet as they were in the fall. We have lost 3 colonies out of 310, but in every case it was our fault. We let them get out of honey, and very naturally death must be the result. We shall try to be more kind hereafter.

Superiority of Italian Bees, etc.—15—L. G. Purvis, (48–75), Forest City, ⊸ Mo., on Jan. 24, 1887, writes:

I commenced the season of 1886 with 48 colonies, some very weak, a few very strong, and the rest of medium strength. I obtained 5,450 pounds of extracted honey, and 150 pounds in sections, and increased my apiary by natural swarming to 75 colonies. Honey sold at an average of 10 cents per pound for extracted, and 15 cents for comb honey. This is rather a favorable location for the bee-business in some respects. I am 28 miles northwest of St. Joseph, Mo. We have an abundance of willow, soft maple, cotton-wood, elm, a great deal of fruit bloom, and later, honey locust; then white clover and linden. In the fall we have heart's-ease, goldenrod and Spanish-needle, the latter being the most important. We also have a great variety of other flowers that yield honey more or less. Our market is handy. I sell ¾ of my honey from my wagon in Kansas and Nebraska. From my experience of 15 years I am fully convinced of the superiority of Italian bees. One correspondent, I believe, said that the Italians were more inclined to rob than the blacks. His experience is exactly the opposite of mine, for in nearly every instance in my experience the black bees are the ones that are thieving, or trying to. When honey is abundant in the flowers, there is not much difference in the quantity of honey stored; but when honey is scarce, the Italians and hybrids will be gaining a little when the blacks are at a stand-still or going backwards.

Not Overstocked with Bees.—Andrew Craig, Empire,♀ Dak., on Jan. 17, 1887, says:

The past summer was one of unusual drouth and heat, and unfavorable for bees, and so far the winter has been unusually severe. I had one colony last spring which cast a swarm on June 15, and I had to feed both of them for winter. They are packed with prairie hay. I hope they will winter, although I have some fears for their safety. They have not had a flight since Nov. 5. There is not a bee-keeper within 30 miles of here; so I have to learn the business alone, by reading and experimenting. I have made some mistakes, one of which was in the width of the top-bars of the brood-frames, which I made too wide; but I intend to remedy it in the spring.

Bees Wintering Well. — Dr. H. Besse, Delaware,⊙ Ohio, on Jan. 31, 1887, writes:

My bees are wintering well so far. Last October I built a bee-house for them; it is 20x24 feet. On Nov. 18 I put 161 colonies into it. I keep the temperature at 44°, on an average; the lowest has been 38°, and the highest 56°. I use no artificial heat, but govern the temperature by ventilators. At some future time I may give you a full account of my bee-house. It is a "daisy."

Selling Honey.—Daniel Whitmer, South Bend,⊸ Ind., writes:

Were it not for some injudicious bee-keepers the market in this locality would be much better than it is at present. Two years ago I got 17 cents for comb, and 12½ cents per pound for extracted honey. But suddenly there appeared a man who was very deficient in wisdom, from Michigan, and sold his at 12½ cents per pound, and finally as low as 9 and 10 cents. Now where is my profit? The market is ruined in this place, and it has been done by men that understand the bee-business—men that produce honey by the ton. In several instances I have instructed men in apiculture, and as a remuneration for the information given, they have in every instance undersold me in the disposition of their crop of honey. I do not fear the slip-shod, and old-fashioned honey-producers, but men that know something; some that even have farms, and are dealers in live stock; men who are making money out of farm products. But what do they care for the bee-specialist, or their own honey crop, just so they get it disposed of is what they are after. Some may think that I am severe, but I mean business! I have become disgusted at the movements of some who ought to know better!

Only an Average Season.—I. N. Rogers, Jackson,♀ Mich., on Jan. 31, 1887, says:

The past season was only an average one in this county, although commencing two weeks earlier than usual. I never had bees build up to overflowing so early since I have kept them. One colony of hybrids cast a large swarm on May 8, and another on May 10. A colony of black bees cast 2 swarms in May, and stored 48 pounds of comb honey in sections by the middle of June, when the drouth came and continued until the middle of August. During this drouth bees hardly held their own, some of them having to be fed. Basswood was a failure. Fall flowers yielded a good harvest.

Commission Men Ought to be Our Friends.—Dr. C. C. Miller, Marengo, ♂ Ills., on Jan. 29, 1887, writes thus:

If I understand it correctly, what is complained of on page 57, is the remarks made about putting certain lots of honey on the Kansas City market. Now I can see nothing objectionable in the matter of telling what is put on the market and when; indeed, what we want is the fullest information about everything pertaining to the business. If there is any thing stated that is not correct, of course the correction should be made, just as any incorrect statement in any part of the columns of the Bee Journal should be corrected. What we want is the full truth. Let us not be unreasonable with the commission men. They are our friends, or ought to be. Simply let them know that if incorrect reports are given they are likely to be looked after.

Bees in a Cave, etc.—John Turnbull, La Crescent,⊸ Minn., on Jan. 13, 1887, writes:

I began with 19 colonies last spring, and I now have 59, all by natural swarming, except 5 nuclei. I had 2 colonies the combs of which melted down on July 5. Bees did well during white clover, but very little in the fall. Some of my late swarms were short of stores. I took 1,000 pounds of comb honey in 1 and 1½ pound sections. My first 150 pounds of honey I sold for 15 and 16 cents per pound. Afterward honey was crowded into the city, so that it was sold as low as 8 and 10 cents per pound, and in trade at that. I have sold the most of mine for 14 and 15 cents per pound. I think that I can sell what I have left for that price. I built a bee-cave in the side of a hill. I put up boards in front to keep up the bank, and then put logs on for a roof, laying the logs close together. I then put 2 feet of straw and 2 feet of earth on the logs, then a shingle roof over all. It is 10x16 feet, 7 feet in the clear, with a hall 6 feet leading into the cave, with two doors. The temperature is from 20° to 30° below zero outside; in the cave it is now 40° above zero. I have a box in it 3x4 inches, inside measure, for a ventilator. The bees are very quiet. I had always wintered my bees in the cellar. There is nothing to disturb them in the cave.

Dry Season in Missouri.—J. W. Johnson, McFall,⊸ Mo., on Jan. 26, 1887, writes:

The past season was a poor one here for bees. I have nearly 40 colonies in the cellar in good condition. We are hoping for a good season this year, for we need honey, and that means money. I think that only a few bees will winter, because it was so dry last season, and the most of the bees are kept in logs or box-hives, and their keepers robbed them too close in the forepart of the season. My health is so poor that I cannot tell whether I will get any honey or not next season, although it may be a good season for the bees. It is said by some that bee-keeping is a good thing for invalids. I was in the late war, and I sometimes wonder whether any of my old comrades keep bees.

[Yes; hundreds of them are engaged in keeping bees and producing honey.—Ed.]

Severe Weather, etc.—S. W. Rich, Hobart,⟜ N. Y., on Jan. 31, 1887, says:

We have had some very severe weather here this winter, but as our bees were in excellent condition in the fall, I predict that they will winter well, as they appear to be doing nicely now. Last season was very unfavorable here, as the crop was very light and of poor quality. We hope for a better crop next season.

Fixing the Price of Honey.—Wm. H. Balch, of Oran,⊙ N. Y., writes:

A year ago last fall a well known egg-buyer told me that he had found a few hundred pounds of honey in a back place that he could buy for a small sum for cash. He wrote to a certain prominent commission merchant in New York city, telling him what honey could be bought for in central New York. One of my fellow-bee-keepers wrote to this same commission merchant, asking him what honey was worth. He named a mere pittance, and referred him to what the egg-buyer said that honey could be bought for in central New York. Again, a man with a few pounds of inferior honey, and in bad shape, will take it to town, and haul it around and shout, "What will you give for honey?" Still another, with a few colonies of bees will have his honey in proper shape, and take it to the grocer and say, "I must have some groceries; give me what you can for my honey." The grocer is in direct communication with the New York commission house; of this I have had them tell me, in the better days of bee-keeping. I think that Mr. B. H. Standish, on page 25, is about right.

Clipping Young Queens' Wings.—Jno. D. Gehring, Parkville,⊸ Mo., writes:

In all the bee-books which I have read, and in all the bee-papers to which I have had access, I nowhere have found any noticeable mention made of this most important fact, viz: Queens' wings clipped before they are fertilized, are utterly worthless! Old bee-keepers may laugh at this statement, so strongly made, until they reflect that there was a time when they, too, had to learn this from expensive experience; but it seems to me these same old bee-keepers were a little dull when they forgot to caution beginners not to clip a queen's wing before she has begun to lay.

Young Bees Hatching.—J. A. Buchanan, Holliday's Cove,♂ W. Va., on Jan. 22, 1886, writes:

Bees are having a grand "romp" in the open air. The temperature is 65° above zero in the shade, with the sun bright and warm. The bees are in splendid condition. I opened a few hives and found that the queens were all laying, and in a few instances some 1887 young bees were hatching. Clover is not yet injured by the winter, which makes good prospects for the coming season.

Extracted Honey in Glass Pails.—John Rey, East Saginaw,⊙ Mich., on Jan. 21, 1887, writes:

For selling extracted honey I would like to have every bee-keeper in or near a city, try glass pails. It is a nice way to put up extracted honey, and it will almost sell itself. Of course a label with the bee-keeper's address should be on every pail. It is the best way for me to handle choice extracted honey in my home market, and it brings the price of extracted honey up from 12 cents to 14 cents per pound. I use pails holding ⅓ pint, ½ pint, and 1 pint. The ⅓ pint pail holds 10 ounces; the ½ pint pail holds 1 pound, and the 1 pint pail holds 1½ pounds. There is no daubing, no waste, and no dipping honey out of a can, for the store-keeper, but it is all clean work, and the glass buckets make a nice appearance. I always have them placed in a show-case, or where they may be easily seen. The pails have bails, and are handy to carry. I also put up honey in pint fruit-jars, but I sell five dozen glass buckets where I sell one dozen of the fruit-jars. I sold more than my entire crop of extracted honey last year in this way. My crop for 1886 was 4,000 pounds of extracted and 2,000 pounds of comb honey, from 118 colonies. Last fall I was in Detroit, and I did not find one store that had extracted honey put up in glass pails. O, how I wished that East Saginaw was as large as Detroit! It is a little hard at first to work up a trade, but if I found a store-keeper that I could not sell to, I would let him take one dozen of each kind of pails and tell him that when the honey was sold I would call for the money for them; and in this way I worked up a nice home market. In order to hold the market, I would always exchange other honey for that which was candied; for if it stands any length of time it will get hard and not sell well. Do the fair thing with your customers, and you can always sell your honey.

Bee-Cellar Lined Overhead.—Frank A. Eaton, Bluffton,⊸ O., on Jan. 26, 1887, writes:

I notice in the answers to Query, No. 365, that it is generally conceded that the lining overhead in a bee-cellar is not necessary. My experience is different. I consider it very necessary, not only to prevent noise, but to help regulate an even temperature. Lath the joist overhead with common plastering-lath, and pack it as it is lathed with good oat-straw; this will absorb the moisture of the cellar and help to regulate the temperature. I have wintered over 100 colonies without any loss (except from starvation), in this sort of cellar for the past four winters.

Bees Playing in Mid-Winter.—Jonas Scholl, (70-72), Lyon's Station, ⊶ Ind., on Jan. 29, 1887, writes:

Bees have come through the long cold "snap" in fine condition. After six weeks of confinement to the hives they had a good flight on Jan. 22. It is quite a satisfaction to see the bees play in the sunshine in mid-winter. In the last ten years I have made no material change in the manner of wintering bees, because it has been so satisfactory. This winter one-third of the colonies have "Hill's device" over the frames instead of square sticks. This gives the bees room to cluster more compactly under the blanket, and easy access to their stores. For convenience and utility, but few inventions have been given to the bee-keeping public that excel this simple arrangement.

☞ The Pan-Handle Bee-Keepers' Association will meet at Wheeling, W.Va., in the K. of P. Hall, 1138 Main St., on Mar. 3 and 4, 1887.

W. L. Kinsey, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

Continuous Advertising brings much larger returns, in proportion to the outlay, than periodic or spasmodic advertising. Keep this point before the people.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., **40 cts.** ; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00 ;** or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen ; if sent by mail, add 1 cent each for postage

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Sellers ask from 7 tn 10 cts. for anything off in comb honey ; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. No demand for extracted, and very little for comb.

BEESWAX.—22c. R. A. BURNETT,
Jan. 19. 161 South Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.

McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4¼c., and comb at 7@12c. per lb.

BEESWAX.—19@21c.

Jan. 31. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.

Jan. 21. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.

Jan. 22. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.

Jan. 22. C.F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.; dark 1-lbs., 10c.; white 2-lbs., 11@12c. Extracted, 6c. Market dull.

BEESWAX.—25c.

Jan. 14. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.

Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote : Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.

Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels. 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels. 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.

Feb. 3. D. G. TUTT & CO., Commercial St.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Advertisements.

PURE Italians. Tested Queens, June, 1.25 each. $12 ₰ doz. Full colony & tested queen, June, $6.
5A1y O. N. BALDWIN, Clarksville, Mo.

READY TO SHIP. — Langstroth Brood-Frames, prepared to nail, at 90 cents per 100 ; 500 for $4.00. I have several thousand of those Nice Brood-Frames in the flat, which, if ordered before Apr. 1, may be had for $8 per 1,000, freight prepaid by C. W. DAYTON, Bradford, Iowa.
2Etf

FOR SALE.—100 Full Colonies of Italian and Hybrid BEES, in 2-story Standard Langstroth Hives, at $10 per Colony. Four-fifths of the Combs are drawn out from Foundation in wired frames ; all Queens reared under the swarming impulse, except a few superseded in full colonies. With the largest order (not less than 10) I will give an Excelsior Honey-Extractor : with 2nd largest (not less than 5), an Excel. Wax-Extractor and Uncapping-Knife—provided I sell my Bees. Bees shipped as ordered, and in the order they are in bee-yard. Remit by P. O. Money Order, or Draft on New Orleans. Correspondence & offers solicited.

Address, W. T. MADDOX, Alexandria, La.
6Atf

DON'T GET LEFT !—Nothing extends reputation equal to the brilliant Chromo Bee-Card. See page 77, or address,
J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

WANTED.—To confer with a reliable married man who has a good knowledge of Bees, with a view of establishing an Apiary near Boston. Address,
6A2t **BOX 151,** MILTON, MASS.

WANTED, an active, reliable man in every city and town in the State of Illinois to work up Councils of the American Legion of Honor, an insurance organization now having 60,000 members, and we are willing to *pay liberally in cash* for services rendered in this work. It can be performed at odd and leisure hours without interference with regular business, and is an occupation affording much pleasure to those engaged in it. For full explanation how to go to work and what to do, address

THOMAS G. NEWMAN,
925 West Madison St., CHICAGO, ILLS.

WANTED.—I cannot give my bees the attention they should have, and I am therefore anxious to obtain the services of a competent, reliable apiarist, to aid me. I want a single man. For further particulars address, **E. C. JORDAN,**
6Atf JORDAN SPRINGS, Fred Co., VA.

CLOVER SEEDS.

We are now selling Alsike Clover Seed at the following prices: $8.00 per bushel, $2.25 per peck, and 25 cents per pound. Also, Melilot or Sweet Clover Seed: $6.00 per bushel, $1.75 per peck, and 20 cents per pound, by express or freight.

All orders promptly filled upon arrival.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

OLD TIME PRICES!

UNTIL further notice I will accept orders for FOUNDATION as follows—to be shipped in April :

Dunham Brood, per lb	35c.
Vandervort Thin, per lb	45c.

All fresh made. Also the best FOUNDATION FASTENER in the market.

WAX worked—Dunham 8 cts. and Vandervort 15 cts. per lb. No Circulars. Seven years experience in the business. J. V. CALDWELL,
6Atf CAMBRIDGE, Henry Co., ILLS.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices : One-half ounce, 50 cents ; 1 ounce, $1 ; 2 ounces, $1.50 ; 4 ounces, $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

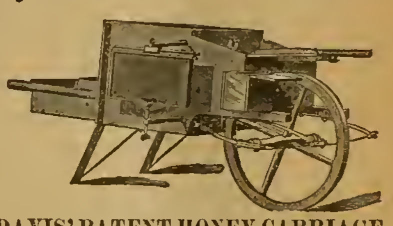
APIARY FOR SALE

HAVING other interests which claim my attention, I wish to sell my apiary of 138 Colonies, in the village of **Winnebago, Ills.**—7 miles from **Rockford,** and 100 miles west of **Chicago.** The location is first-rate, aud no other apiary near. The past season, 82 colonies increased to 138, and gave 7,000 lbs. surplus—nearly all white clover, and 4-5 of it comb ; 2,300 lbs. sold at home for cash without peddling. Langstroth Hives, with good Combs, Tiering-up Section-Cases, Division-Boards and Feeders, Extractor, and good Honey-House. (Rented place of one acre.)

If not disposed of before April, it will be sold at auction.

C. M. HOLLINGSWORTH,
6E3t WINNEBAGO, ILLS.

Systematic & Convenient



DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only..... ..... $18.00

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive,** the Standard Hive of Vermont,

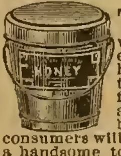
SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS, Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
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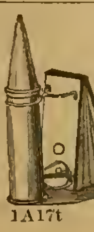

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1887.

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1A6t 7D6t

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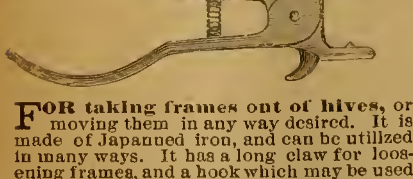

FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Plyers. Price, 40 cts., by mail.

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(Mention this JOURNAL.)

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SQUARE GLASS HONEY-JARS, etc.

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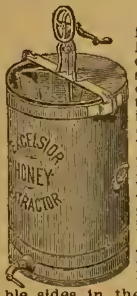

In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

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It makes the finest extra thin Foundation for comb honey. For Sale by

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We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

Hives, nailed and painted, $4.00 each.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

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No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00.**

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

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You can make money selling our trees, and get your own trees free. Green's Guide to Grape Culture, 25c. Green's Guide to Strawberry Culture, 25 cents. Green's Fruit Grower, 50c. per year, and Green's "How to Propagate and Grow Fruit," 50c., all to one address for 50c. Green's Tree Agent's Guide, 15c. Green's Books, (3) combined with 15 colored plates, gilt cover, 75 cents. Green's Descriptive Catalogue, with 5 colored plates and two back copies of Fruit Grower, 10c. Address,

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AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Feb. 16, 1887. No. 7.

Flowers.—We acknowledge the receipt of a bouquet of flowers from Mr. J. W. Winder, of New Orleans, La., which came by mail on Feb. 7. With it was two stems of white clover in bloom, the stems being a foot long. This shows what a varied climate we possess—flowers in bloom there while here the land was clad in a mantle of snow and ice, and the thermometer indicating 20° below zero.

* * *

Mr. W. T. F. Petty has sent us samples of his new queen shipping-cages. They are 2x1½ inches by 1 inch high. There are places for the bees and food separately, with an entrance to each in the side, which is covered by a sliding door—the whole weighing less than half-an-ounce. The ventilation is unexcelled, and the whole thing is neat, light, strong and cheap; it can easily be filled with bees and food, and can be sealed up by simply attaching the necessary one-cent stamp. The grain of the wood of the thin top and bottom runs crosswise of the cage, making it very strong and light.

* * *

Robert, son of C. H. Lake, of Baltimore, Md., died on Jan. 22, 1887, aged 11 years. This is the third child Mr. Lake has lost within the past two years. He buried his only daughter, aged 12 years, two years ago, and his oldest son a year ago, 21 years old.

* * *

Referring to an item on page 67, about another bee-paper for Canada, a correspondent in the *Canadian Bee Journal* says:

> I sincerely trust this is a mistake, but if the project is really under serious consideration, I hope the projectors, whoever they may be, may re-consider the matter. Instead of *two or more* inferior, half-supported bee-journals in Canada, let us have one good one....Two papers cannot, in my opinion, thrive and succeed.

Now, we can inform our Canadian friends that a **third bee-paper** is projected in Canada—to be called "The International Bee-Master." Of course all cannot prosper—the only *possible* result is dismal *failure* and loss to the projectors, as well as to those who subscribe for *some* of them.

Down-Right Dishonesty.—In the Berryville, Va., *Courier*, we find the following which was sent to us by a correspondent from Maryland:

> Recently a bee-keeper of Berryville, Va., sold to a merchant in York, Pa., about 500 pounds of honey. Instead of receiving a check, he received a letter from the merchant's son, saying the honey was almost worthless, and would be sold for what it would bring. Mr. D. promptly took a train for York and dropped into the store he had shipped to. Upon inquiry he found that he was in the presence of the young man who had written the letter which took him to York, and he asked if he had any honey for sale.
>
> "Oh, yes," was the reply, "I have a fine article just from Virginia, and will show you a sample of it," and thereupon stepped back and in a few minutes returned with some of the beautiful honey. "Is it all like this?" "Yes, sir," said the young man. "How much have you?" was next asked. "About 500 pounds." "Are you sure the lot is as good as that?" he next asked, "as I am a good judge of honey." "Just walk back here and see for yourself," said the young man. "Well, I am glad to hear you say so, and now I'll introduce myself. I am Mr. D. to whom you penned this letter"—producing the letter—"and the next time you undertake to play a sharp game be sure of your man first." If a thunderbolt had shaken the house the young man could not have been more startled at the manner he was confronted by the person he sought to victimize with rascality, and he was compelled to hang his head in shame.
>
> Mr. D. demanded his money, and after a few words a check for it was issued.

Our Maryland correspondent suggests that, "in order to obtain fair prices for honey, the time will come when private routes, similar to the 'city milk routes' will have to be established in order to sell the honey produced !"

Of course it must be borne in mind that the above is an extract from a local paper, and may not be quite correct in detail, and we hope, for the sake of our confidence in humanity, that it is an exaggeration.

The honey routes have been tried in this city, and were very profitable until Perrine (the "boss" adulterator) ruined the business with his glucose abomination ! Now, it would be impossible to do anything in that line, for almost every customer remembers the Perrine wagons and their *trash !*

It might be made successful where such experience is unknown, and such methods unthought of. Perrine boasted that the business brought him thousands of dollars every year, until he ruined it by his avariciousness and dishonesty !

* * *

Eugene Secor was elected Vice-President of the Iowa State Horticultural Society at its late annual meeting at Charles City. We learn the above from the Winnebago *Summit*, which also contains the following about wind-breaks in prairie country:

> The society offers liberal premiums for new seedling fruits that are desirable, and also for the planting of forest trees. The evergreens recommended for general planting are, white and Scotch pine and Norway spruce, and red cedar and arbor-vitæ for hedges. Evergreens make the best wind-break, and their cheapness ought to induce a more liberal planting of them. He says, by the thousand, they can be got for about a cent apiece, large enough to plant out where wanted. European and American larch (tamarack), and 30 or 40 other varieties of deciduous trees are perfectly at home here in Iowa, and should be more largely planted. They beautify the landscape, break the force of the wind, and add to the money value of every farm where planted.

Legislation Against Bee-Keepers.—Mr. M. H. Hunt, of Bell Branch, Mich., writes as follows:

> I have just read a copy of a bill introduced in our legislature making it unlawful to keep over 5 colonies of bees within 25 rods of the public highway or dwelling house not owned by the owner of the bees. Should this bill pass it will be a serious matter for a large number of our friends. I advise the bee-keepers in every legislative district to send in remonstrances signed by every bee-keeper and his friends in this State; also let the member from each district know how they feel on the matter.

A similar matter is reported in California, where a petition to the legislature is being signed in San Diego county, asking to have the bees removed from the lands adapted to the production of raisins.

"Class legislation" is to be regretted at all times, and we seriously doubt whether it should *ever* be enacted. In the cases cited, it would be a grievous burden upon apiarists, and should be energetically opposed.

* * *

The National Pure Food Convention was held in Washington, D. C., on Jan. 19, 1887. The President's address contains the following:

> This is an unselfish movement, as broad in its character of beneficence to present and future humanity as the cerulean vaults of heaven. Its benefits are truly unselfish, for its foes as well as its friends shall receive its blessings. Its virtues, like rain from heaven, shall fall upon foe and friend alike. We have begun action, and we will not cease until we have accomplished all it is possible to accomplish. To every foe who turns up to discourage us we shall find a hundred friends to cheer us onward in this battle, for pure sustenance, the foundation of happiness, prosperity and good government. The people shall know their enemies, those who for gain would give no encouragement to elevate their race to that state of true happiness that comes from the vigor and virtue of good health. This nation cannot exist many years without protecting its people from fraudulent and injurious adulteration. The time is here, and now we vow eternal steadfastness to this work, until the commerce, the health and life of the American people be as fully protected as are the same of the people of almost all foreign governments.

* * *

Some Years Ago, in central Illinois, Mr. H. Thayer had several colonies of bees, but they all winter-killed. Not caring to re-stock the hives he destroyed all but one of them; that one he left just where it stood when the bees in it died. Last summer, says a correspondent, he noticed a lot of bees busily cleaning out that hive, and the next day a swarm came and occupied it. In about 15 minutes after that another swarm came from the opposite direction, and also went into it—the two swarms uniting peaceably. They are now in winter quarters doing well.

* * *

Catalogues for 1887.—Those on our desk are from

G. M. Doolittle, Boredino, N. Y.—4 pages—Bees and Queens.
J. D. Goodwich, East Hardwick, Vt.—1 page—Bee-Keepers' Supplies.
M. Richardson, Port Colborne, Ont.—16 pages—Bee-Keepers' Supplies.
J. W. K. Shaw & Co., Loreauville, La.—4 pages—Italian Queens.
A. D. D. Wood, Rives Junction, Mich.—8 pages—Bee-Keepers' Supplies.
Geo. E. Hilton, Fremont, Mich.—3 pages—Apiarian Supplies.
F. M. Atwood, Rileyville, Ills.—7 pages—Apiarian Supplies.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Feeding Syrup to Bees.

Query, No. 374.—Ten pounds of granulated sugar will make a little over 16 pounds of syrup. If this syrup is fed to a colony having empty combs, so that the bees will have to store it in the combs, how many more pounds will the colony weigh at the end of a week, providing other colonies are neither losing nor gaining in weight; the bees to have their liberty all the time.—H.

Try it and tell us through the BEE JOURNAL.—G. M. DOOLITTLE.

It would depend upon the time of the year the feeding was done.—G. L. TINKER.

On the average, about 10 pounds, providing there is no combs built. That was my experience with pure honey, and I do not see why it should not be so with syrup.—C. W. DAYTON.

Experiments seem to show that the loss in storing about equals the water in the syrup; so that we must allow only for pounds of sugar. In the above case there would be about 10 pounds of stores. It is curious about this loss; but the fact still holds.—A. J. COOK.

Mathematically, the question cannot be answered. Bees, when fed a given quantity of sugar syrup, always fail to store the same quantity in the combs. This is why all the projects of feeding back honey, sugar syrup, etc., have failed in a pecuniary sense. —J. P. H. BROWN.

Yes, 10 pounds of granulated sugar will make a little over 16 pounds of syrup, more or less, according to its density, and considerably less if it is as thick as it ought to be. In a week after you feed it, you will find that it has not increased the weight of your hive more than 8 or 10 pounds. The proper way is to feed combs of sealed honey.—G. W. DEMAREE.

It is hard to tell without actually trying it. Even then the next trial might show a different result. Would not 16 pounds of syrup from 10 of sugar be pretty thin? At a rough guess I should say there might be a gain of 5 pounds, but it is only a guess, and as before intimated the results might be very different at different times.—C. C. MILLER.

My tests in this direction have shown me that a loss in weight will be found; that is, the weight will not be as much as the food itself before being given; and I find, too, that there is a variation in different colonies, and at different times as to the loss in weight.—J. E. POND.

If you feed such thin syrup as that, what you feed will weigh but 13 pounds, as soon as it is evaporated or ripened to the consistency of ripe honey. I use 3 pounds of water to 10 pounds of granulated sugar, when feeding late. Whether there will be much further loss in weight, will depend upon how much breeding, robbing, etc., is going on.—JAMES HEDDON.

Because the loss is so great, feeding back extracted honey to the bees to make comb honey has been a failure. Only the sugar will count—the colony will probably only increase 10 pounds. —THE EDITOR.

Producing Extracted Honey.

Query, No. 375.—Having 30 colonies of hybrid bees in 10-frame Simplicity hives, can I produce more and better honey by extracting directly from the brood-chamber, or by placing extracting supers on the hives, and using the tiering-up plan? Would it be advisable to place Simplicity brood-chambers, with wired frames and full sheets of foundation, underneath the brood-chamber already in use?—W. P., Wis.

Place extracting supers above the brood-chamber.—DADANT & SON.

By placing extracting supers on the hives, and using the tiering-up plan. —G. L. TINKER.

1. Use the tiering-up plan. 2. Should prefer to place them on top.—G. M. DOOLITTLE.

I think that I should prefer to tier up. I would hardly put anything below the brood-chamber. — C. C. MILLER.

I should prefer extracting supers and tiering-up; but if you resort to an extra brood-chamber beneath the one already in use, you will need no extra supers on top.—J. P. H. BROWN.

I would adopt the tiering-up system, by all means, and put the super over the brood-nest.—W. Z. HUTCHINSON.

Tier up and extract from the surplus department. Put on tiers of combs "under" the brood-chamber proper.—JAMES HEDDON.

I should prefer to put on a super and tier up. It will not give you any satisfaction to put a full size frame under your brood-chamber.—H. D. CUTTING.

I prefer the tiering-up plan; not to get better honey, but for convenience. *Honey is honey;* and well-cured honey from the same kind of bloom is equally excellent however secured.— A. J. COOK.

1. By using supers and tiering up. 2. With this method, excluding honey-boards must be used to confine the queen, and one or two combs of brood should be placed in the lower story, and then watch that young queens are not reared in the upper story. Under these conditions it is all right.—C. W. DAYTON.

The quality of the honey will be all the same whether you extract from the brood department or from supers, but to take the honey from supers, on the tiering-up plan, is much the best way. There is nothing to be gained by putting the supers under the brood-chamber.—G. W. DEMAREE.

1. Put on upper stories and adopt the tiering-up method, by all means. The number of stories to use will depend upon the honey crop; enough should be used to catch all the nectar the bees bring in, and also to allow of full evaporation or ripening before extracting. 2. I think not; I should place them above, by all means.—J. E. POND.

Place the extracting supers above (not below) the brood-chamber. The honey will not be better, but the plan more convenient. Whether the quantity of honey will be much or little will depend upon the season.—THE EDITOR.

Management for Comb Honey.

Query, No. 376.—Next season I shall work my apiary for comb honey, and this is the course I am thinking of following: First, I shall get the bees to breeding as early as possible, and keep all combs full of brood by contracting, uncapping honey, and giving only enough comb for the queen to keep filled with brood, striving thus to have all the honey put into the boxes. Next, I shall permit one swarm from each colony; shall hive it on 4 or 5 frames with starters of foundation, and with a large case of sections filled with comb foundation. Now as to the old colony that has cast a swarm: It is without a queen, and for two weeks the bees will put the honey into the brood-frames, thus getting the start of me. I propose to set aside, early in the spring, a few colonies to rear queens, placing these queens in nuclei until wanted. Four days after a colony has cast a swarm, I shall cut out all signs of queen-cells and introduce one of these young queens, which I will expect to keep the honey out of the frames by keeping them filled with brood. Does the above plan seem feasible?—A. L., Mass.

Yes.—DADANT & SON.

Yes; all but the waiting four days. Give the queen in 24 hours, and for me I should as soon have a virgin queen for this purpose as a laying one.—G. M. DOOLITTLE.

Theoretically, your plan is perfectly feasible, but practically it will be attended by a few objections, such as too many swarms, and too much laborious "tinkering," particularly in a large apiary. Besides, a constant disturbance of a colony of bees during the midst of a honey flow is objectionable.—J. P. H. BROWN.

I believe your plan to be a good one, for a lengthy and light honey flow; but in many locations we must get the honey from an old colony that does not swarm. The honey flow is too short for such manipulation and building up of the colonies after swarming. It needs a cheap assistant with a sharp eye. to find and cut out queen-cells.—C. W. DAYTON.

Your theory is all right. Let us know just how it turns out in actual practice.—H. D. CUTTING.

The above plan is feasible, but it is doubtful if the best one that may be pursued. The rearing of the young queens as proposed would cost the use of several colonies, and result in a loss of the honey they would produce, with only a trifling gain; for, after a colony or two has swarmed there will be queens enough costing nothing for all purposes. Again, if the flow of nectar is short, as is the rule, it seems best to prevent increase by hiving the swarms into hives of brood which may be readily prepared for the purpose where there are many colonies in an apiary.—G. L. TINKER.

Yes, and it would be even if queens were not introduced. The old hive will be full of brood when a swarm leaves, and there will be but few bees left; so that the new queen will be in time. I should not go to the trouble to rear the queens, but rear one from each colony. I think it will pay best. —A. J. COOK.

The plan you suggest will work very well. In its main features it is much like my plan for preventing increase, and utilizing the swarming energy. I do not cut out the queen-cells at all, for the reason that I shake nearly all the bes off of the frames on the seventh day in front of the hive containing the swarm, and this so weakens the old colony that the first queen that hatches, or any virgin queen turned into the hive, will destroy all the queen-cells, and prevent after-swarms. I prefer to introduce virgin queens to colonies just after casting a swarm.—G. W. DEMAREE.

It is worth trying. As the plan is one of *your* devising you will be more likely to succeed with it than if any one else devised it, but the longer you keep bees the less you will feel certain about what any plan will do till fully tried by the bees. You might try one or two colonies by giving the new queen, without waiting four days.—C. C. MILLER.

Theoretically, the plan is not only feasible, but it is *the* plan to work after. In practice it will be found difficult to follow it, owing to the many "snags" that will be found to run against. My advice is, to follow this plan as nearly as possible, as it is the general plan used by all experienced apiarists.—J. E. POND.

For the "first two weeks" not very much honey will be gathered by the old colony. There certainly will not, if the Heddon method of preventing after-swarming is practiced; and even if there is, the bees will "elevate" it to the sections just as soon as the young queen begins to be crowded for room. The colonies run for queen-rearing will, in this case, be worse than wasted. Do not do it. —W. Z. HUTCHINSON.

Much of your proposed plan is practical with a small number of colonies. I would let the old colonies supply the new queens, and you need have no fears of the old brood-chambers becoming clogged with honey, for as soon as the young queens need the room, it will all be changed to brood. —JAMES HEDDON.

Your plan will doubtless succeed in an apiary of medium size. Try it with a few colonies, and then you can better judge its practicability. — THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⊷ northwest; ⊶ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Feeding Bees for Winter.

DR. A. B. MASON.

Nearly every fall since I began bee-keeping, 18 years ago, I have had to feed some of my colonies so that they might have plenty of stores for winter. Previous to last season I had worked for extracted honey almost exclusively; extracting all the white clover, basswood, and sweet clover honey, relying upon the yield from fall flowers for winter stores; and the fall honey being often a minus quantity, has obliged me to do a large amount of feeding, sometimes as many as 70 colonies, and it has always been a dreaded task.

On removing sections and the supers used for extracting, the first of last October, I found that most of my colonies would require feeding in order to have plenty of stores for winter, and I proceeded as follows, and the work was so readily and rapidly completed that I shall never dread feeding again:

The frost having previously killed the honey-producing flowers, and the bees being quiet and closely clustered, on Oct. 6 I weighed every hive and its contents, and noted the number of spaces occupied by bees, and the number of frames, etc. Towards evening the weather became warmer, so that the bees were flying quite lively. I shook the bees from several hives, and found their weight. I also weighed several empty combs, and empty hives, and by a brief calculation I found the amount of stores each colony had, and when one needed feeding, I raised the front end of the hive about 2 inches, and nearly closed the entrance, so as to prevent robbing while feeding. Having on hand a quantity of well-ripened unmarketable honey on the morning of Oct. 7, it being warm and the bees flying I commenced feeding. Having a quantity of tin boxes holding about a pound of honey each, I had them filled, and going to the hives where food was needed, I removed the cover and turned up the back end of the quilt and poured from one to five pounds of honey into each hive.

But few colonies were fed before the bees of the whole apiary seemed to have found out that there was honey to be had, if they did have to fight to get it, and I had to suspend operations. But not wishing to be out-generaled, I prepared for an evening entertainment, and as soon as the bees had nearly ceased flying I again commenced operations. But not wishing to repeat "Novice's" experience, so graphically described a few years ago in *Gleanings*, when he tried working at the bees at night with "Mrs. Novice" holding the light, and the bees doing a large amount of crawling. I did not raise the quilts, but raised the front end of the hive still higher with one hand, and poured in the honey rapidly, and so kept in all the bees. When too dark to see well, a light was held for me. The next morning every thing was quiet, and in "apple pie" order. This operation was repeated for two evenings, and my bees were ready for winter quarters, so far as I was concerned.

When I commenced feeding there was an average of 9 1-5 pounds of honey to each colony, and I fed an average of 6 pounds per colony, and the average loss in weight for the three nights and two days while feeding was 1½ pounds. A colony that was not fed any, lost 1¾ pounds, and others not fed lost in weight. One colony that was fed 6 pounds gained 3¾ pounds more than was fed; and there was no robbing.

On Nov. 13 all were placed in the cellar with an average loss in weight from Oct. 9—the date of the last feeding—of 1 5-7 pounds.

The above is a portion of my essay read at the Michigan State Bee-Keepers' Convention, held at Ypsilanti recently, and at which I am reported as saying that the loss in feeding 6 pounds of sugar syrup was 1½ pounds. I did not feed sugar syrup, but fed as stated above, well-ripened honey, and I was surprised at the loss in weight, and should have expected greater loss in feeding syrup.

Auburndale, ⟜ O.

For the American Bee Journal.

Securing a Uniform Price for Honey.

J. F. LATHAM.

The general gist of the articles and remarks that appeared in the closing numbers of the BEE JOURNAL for 1886, and thus far this year, embodying suggestions relative to concerted action by apiarists in regulating the sale of their honey, seem about "pat" to the call of the times; particularly those of the Editor on page 771, and Mr. Baldridge on page 774 of the BEE JOURNAL for 1886. Although the slip-shod, back - woods - go - as - you-please bee-men mentioned by the Editor, and the "wholsale commission dealers" and "up-with-the-times mischief-makers" mentioned by Mr. Baldridge, may be quite prominent in their spheres, they fail to complete the list.

But little fear need be entertained in regard to the "slip-shods," as their shadows, now scarcely discernible, are fast relegating to—nowhere. If the "real mischief-makers" described by Mr. Baldridge as "running around," etc., disparaging their good fortune, and "forcing grocers and everybody else to take the 'stuff' at their own price," *are* serious obstacles to a brisk demand for honey at paying rates, there is also another class who may be added to the list and described as "running around" among producers offering "spot cash" for their whole crop at the apiary; relieving them of all trouble in finding a market, costs of transportation, and as often viewed by the bee-keeper, commissions; but the actual "runner around," when making calculations of his sales, needs no prompting to anticipate which side of "profit and loss" will be augmented by the commission; illustrating very fully that Mr. Baldridge, who represents himself as an old honey dealer, is well posted in what he is writing about. Notwithstanding the many facts in his statements, the "white sheep" of the flock ought not to be blackened by inappropriate appellations. Scape-goats often fail to fill the bill of the immolator!

Eight and 10 cents per pound, at present costs of production, for a good quality of comb honey at the apiary, does not invariably result in pushing things the right direction, when the same honey costs the consumer 15 and 20 cents per pound; neither will a second-hand purchase of a ton or more of the same honey in light-weight packages, and disposing of the same at a price per section that was paid per pound, list among the "business-like methods" that always result in securing to all *bona-fide* producers "a fair, honest and decent price for their honey."

But what is a fair, honest and decent price for any commodity but the medium rate that represents the equilibrium of value in exchange—the expositor of supply and demand? If a bee-keeper makes the production of honey wholly or partially the means of a livelihood, the exigencies of his avocation require an exchange of the fruits of his labor for other commodites that the calls of life demand. A brisk exchange on satisfactory terms, results in "business prosperity." A lethargic call for the staples of life results in "business depression." When an excess of production is *forced* upon the market the consumer gets the advantages of low prices; while a "lean" market and high prices favor the producer. When a large surplus of corn is produced in the West, the Eastern consumer gets his supply at a comparatively low cost; while a deficient crop increases the price. In either case the exigences of location lead the consumer to comply with the fluctuations of the market, which he can neither "bear" nor "bull"—local production not being sufficient to aid him in influencing "trade rates."

It is not apparent that a diction of sale rates can be made *radically* applicable in establishing a uniform price for a product derived from an area so variant as those from which the honey crop is obtained. When apiarists in California, Texas or Florida can produce honey, transport it to the Eastern markets, and sell it for less than what would be remunerative for honey from the apiary of the bee-beeper to whom the Eastern markets are home markets, how is the difference to be equalized? Surely, not by any "robbing of Peter to pay Paul" edict from a local association; or Board of Trade that would monopolize the sale of all the honey within its reach. Monopolies are expensive luxuries. The less tribute a product pays to useless handlers, the more satisfactory will be the negotiations of those who may be the most directly interested in its movements.

With the foregoing incomplete summary of the subject, it seems that the main features of an association for honey producers need be no more or less than a systematic centralization of ideas based on information representing the true *status* of the honey crop each season; the requirements of trade, demand and supply, in the different localities of our apicultural area; and a central body distributing the rays of its satellites—instead of the reverse—by a genuine, *bona fide* market report, coupled with such suggestions as the movements of the markets from time to time demand.

Cumberland, Me.

For the American Bee Journal.

The Cappings over Honey.

C. P. DADANT.

On page 71, Mr. Hutchinson speaks of my incidental quotation from Mr. Cheshire's writings, as though it was the main argument of my article. I would ask him to read the article over and answer my question: Why is the honey in the sound, sealed cells liquid while the other is granulated? I would offer to send him a sample of that honey, free and prepaid, but I suppose he has seen the same thing.

I also wish to state that I quoted *only* Mr. Cheshire's *conclusions* on the imperviousness of the cappings, which Mr. Hutchinson does not give. My reasons for quoting so little from Mr. Cheshire were, that the part of his writings given by Mr. Hutchinson is rather contradictory in itself since he says that "*the air* intervening between the irregular tape-like shreds *cannot escape*" (italics mine), which would mean, if it means anything, that the cell is air-tight. Moreover, Mr. C. calls the honey-cells air-tight.

These contradictions in the most thorough and most scientific work on bee-anatomy, in a book that has corrected gross errors, that we all believed as truths, in the writings of our leading teachers, only show that this question of imperviousness is a thorny one.

I would add only this: I have repeated, on some of the honey mentioned in my former article, the tests made by Mr. Cheshire, of steeping it in water for weeks, and the result in my case was *entirely negative*, for not a single cell of it absorbed water. True, this does not disprove Mr. Cheshire's test, but it proves that different circumstances cause different results. I would ask Mr. Hutchinson to make this test himself on different grades of comb honey.

Hamilton, Ills.

For the American Bee Journal.

A National Honey Company.

SAMUEL RAU.

After reading Mr. J. V. Caldwell's article on page 308 of the BEE JOURNAL for 1886, I thought a good deal about the honey "corner" he slightly hinted at, but as the "corner" business has heretofore been manipulated, I confess the idea was rather unsavory to me.

Since then I have read of the cattle men of the West, who complain of the middle men robbing them of all the profit in the business, and are moving towards forming a gigantic cattle pool. They contemplate forming an association with a capital of $100,000,000 in 1,000,000 shares of $100 each. Now, it seems to me that we honey producers of this country, "flowing with milk and honey," could get something feasible and tangible out of this movement to help our own case.

Why could not the bee-keepers of North America form an association with 100,000 capital in 10,000 shares of $10 each? Or, if this amount is inadequate, increase the capital to $1,000,000. Some of the weak-kneed ones may, at first sight, be almost scared, and in amazement wonder where all this money is to come from, but hold your peace and see. The company would have to be organized upon the most substantial basis possible; be under the management of a certain number of directors to be elected by the stock-holders; these directors should be no weak-kneed or hesitating men, but the most practical, substantial, energetic, influential and pushing men in the whole fraternity; they should be men of experience and unquestionable honor! They should be men of pluck and the ability to organize—such men as the Western Union Telegraph Company, and the Standard Oil Company have at the helm. Do not say that we do not have them; we have the material out of which to make them. The opportunity and the occasion almost invariably produce the men.

Let each bee-keeper take one share of the capital stock, for say every 40 colonies of bees, or fraction thereof that he owns. I am writing without any statistics at hand, and this is made merely as a suggestion, and might be improved upon. These shares might be made payable in several different annual payments, bear 6 per cent. interest, and be secured by first mortgage on the bees represented. On these mortgages any amount of capital necessary to carry on the business could be raised. Middle men could be entirely dispensed with, thereby increasing prices to the producer without increased cost to the consumer.

The company should sell stock only to actual bee-men and honey producers, and control the entire honey interest of this continent. It could soon guarantee to its stock-holders better prices than they are now receiving, as well as guard against any further depreciation of prices. They would of course have to establish honey depots in all the principal cities and towns of this country, and perhaps eventually open up markets in foreign lands. Then let no honey be sold at any price except through, or by the consent of this company, and each member be allowed to ship in honey in proportion to the amount of stock he has.

You can call this a "corner," pool, or what else you please, but I am convinced that if rightly organized and ably managed, a company of this kind could not fail to be of immense advantage to the bee-keepers of this country, without working to the detriment of any one. The railroad companies pool issues; the great manufacturing and mining companies organize and combine for their own financial safety and protection, and why not we? No doubt there would be obstacles to remove and difficulties to surmount, and many a "Doubting Thomas" to silence. It might even take several years to fully organize and equip a company of this character, but perseverance and persistent effort would in due time accomplish the desired end, and lift the vast honey interests of this country out of the slough of despondency and place them upon the solid basis of permanent prosperity. The hour is ripe—the opportunity of a life-time is before us. Will we improve it? What say you, fellow bee-keepers?

Columbiana, ♂ O.

For the American Bee Journal.

How to Sell Honey, etc.

W. J. CULLINAN.

As to fixing the price of honey, I think it would be difficult to do, although much might be done toward keeping up the price. I am of the opinion that if bee-keepers would organize themselves into commercial unions in every State, gather up the honey of their specified territories, grade, crate, and offer it in attractive shape and at stated prices, it would be a big stride toward success.

In the meantime, each individual honey-producer should thoroughly canvass his (or her) own neighborhood, and thus build up a trade of their own. There is no apiarist but who has lots of customers all around him, and he will surprise himself if he will but make an effort to bring them in contact with his product and solicit their patronage.

Tell them (your customers) that honey is good for the lungs and liver; that they will not cough so much nor be so bilious; that it is a blood purifier, a mild laxative, in fine a thorough and harmless renovator of the whole system; that they will live longer, feel better, be more at peace with themselves, their Maker, and with mankind; die happier, and leave a greater legacy to their children, if they will but consume honey in lieu of other sweets. Remember, "you know not what you can do until you try!"

On Nov. 27, 1886, I carried 16 colonies of bees into the cellar, the temperature of which I have tried to keep as near 42°, Fahr., as possible, although at one time it sank to the freezing point. I find that the bees keep the most quiet at from 38° to 42°. On Jan. 20 I carried 3 colonies out of the cellar, and found, upon examination, that they were in splendid condition, with scarcely a dozen dead bees to the colony, and hardly any perceivable diminution in their stores. I never saw bees look cleaner, brighter and happier at this season of the year. It is too soon to crow, but I must say that I am highly pleased with cellar wintering, so far!

Mt. Sterling, ♂ Ills., Jan. 27, 1887.

For the American Bee Journal.

Effects of too Much Ventilation.

C. W. DAYTON.

Though I have always argued in favor of ventilation, I did not always find it entirely satisfactory. Many of the readers probably know that I practiced suspending the colonies in "mid-air" in the cellar.

When I began keeping bees I thought if I could get the bees safely through the winter I should be satisfied. This was only partly the case. While I was pleased to find the colonies strong and healthy it was less pleasing to see them entirely destitute of brood. By experiment it was found that the nearer the condition of the colonies approached the "mid-air" suspension method of ventilation, the more certain was the preservation of the lives of the bees, and their ability to rear brood was proportionately lessened.

My cellar is contrived so that any degree of temperature between 40° and 50° can be easily maintained. The colonies were put into the cellar from Nov. 12 to Nov. 25, and taken out from April 12 to April 25 in every year. Sometimes 100 colonies wintered entirely without loss, and when put out they were found without so much as an egg to indicate the presence of a queen.

When they were put out late in April it would be late in May before young bees could be reared to take the place of those that were fast disappearing on account of old age. As a consequence, strong colonies that continued a month without replenishment, became weak, and consisted almost entirely of young bees. Had the colonies come from the cellar weak in bees they would have been very likely to have dwindled entirely away; but the colonies that were wintered on the suspension principle were almost without exception very strong and healthy when put out, so they built up again after the dwindling season was over.

Having the colonies in their weakest condition (in number of bees) about the middle of May, and the white clover coming into bloom from June 10 to June 20, it made lively business getting the weakened colonies in good working condition in the short space of time. Under these conditions have I reported successful wintering of the bees, and that they were not ready to sip from the clover when it came into bloom.

By the suspension method I have wintered strong colonies in all temperatures ranging from 30° to 50° above zero, and maintained all the winter, and it was a rare case if the colonies were not well supplied with healthy bees when taken out in the spring. In wintering very small colonies at a temperature of 30°, they gradually dwindled away, yet not so fast but that some bees remained to protect the queen until taken out of the cellar. This experiment was tried many times, and it was seldom that the colonies came through the winter in good condition.

When the temperature for the small colonies was at 50°, they came out tolerably well, but as they needed warmer and closer packing in the spring, and close attention all the time, I gave up their care as too "puttering" business. I think 60° would be about right for 2-frame nuclei in the forepart of the winter, and 75° or 80° the proper temperature to start brood-rearing in March and April. Ten degrees lower than that would do if their brood-chambers were tightly sealed above, but I find where the brood-nests are tightly sealed all winter, moisture accumulates and disorders the colonies so that 99 out of a 100 are in a deplorable condition long before spring comes to their relief. The abundant ventilation and consequent conditions seems to restrict the bees so that they remain tightly clustered for the economizing of heat.

Bradford, ♂ Iowa.

For the American Bee Journal.

Prevention of Swarming.

J. H. ANDRE.

The general opinion of those who have spent a life-time with bees, is that there is no sure way to prevent swarming, unless the colonies are kept weak by dividing, and then one must use care or the hatching of young queens will frustrate his plans. But if one does not want natural swarms, he will hardly want to divide colonies. My way of preventing swarms (remember, I do not say it is infallible) is to feed the bees in the spring until the apple blossoms furnish nectar; if there are no blossoms, feed the bees later, but discontinue the feeding at least a week or ten days before white clover blossoms; this will get the colony strong in bees, and enough should be fed so that 10 pounds will be stored in the hive.

There is usually a short honey drouth between apple bloom and white clover, and if the bees have been fed liberally previous to this, it will be quite natural for the queen to cease laying. This will give a strong colony of bees, and of the right age to gather honey instead of swarming, and when the harvest of white clover comes these colonies will not be overstocked with eggs or brood. Give them a chance to work on surplus, and if you take off the cases entire, do not wait for them to fill the last sections, but put the unfinished ones in the next case. This is a good plan to try, and one that does no damage.

Lockwood,♀ N. Y.

For the American Bee Journal.

U. S. Honey-Producers' Association.

J. F. HAYS.

In his suggestions to honey producers in regard to selling their honey in home markets, Mr. M. M. Baldridge says: "Pay retail agents a good commission; if they disobey instructions, take away the unsold honey and refuse to supply them with any more until they comply with your wishes."

I do not look upon this plan in such sanguine light as does Mr. B., for in 99 cases out of 100, instead of the dealer complying with the producer's wishes, he would be supplied with an inferior quality of honey, likely enough built by the bees in a soap-box inverted on an old-fashioned box-hive, while the producer with his first-class honey would be left in the lurch. This is a very important point to consider in this matter of controlling the price of honey, and for which I can see no remedy.

Mr. B. next informs us that 20 and 25 cents per pound is none too much for honey, on the principle of "live and let live." Now let us look at the inconsistency of this. A few years ago honey was in demand at 25 cents per pound; then honey producers were almost "tickled to death." They boasted that they were making from 200 to 500 per cent. on their investments, and boasted so long and loud that they attracted public attention, and the people were not slow to take hold of a business requiring such small capital and with such paying results. Naturally enough, there are now more than fifty honey producers to where there was one then; consequently prices for honey have fallen on account of over-production. *Now* there is quite a change in the tune. Instead of boasting of enormous profits there are pitiful whims about not getting former high prices, on the principle of "live and let live."

Mr. B. next proceeds to berate the commission men. He says that commission men are to a great extent responsible for the prevailing low price of honey. Will any bee-man admit such misanthropic nonsense? His remedy for the evils commission men have wrought, is organization. By what means he expects honey producers to better their condition when organized, he leaves his readers in blissful ignorance. So did the leaders of the Grange movement a few years ago. That word "organize" possesses a magical power that is generally sufficient to cause men to jump without considering where they may alight. The farmers were made to believe that they were suffering terrible things at the hands of "middle men;" and the cry was, "organize," and organize they did, but they ignominiously failed to better their condition one whit. Does Mr. B. expect honey producers to make themselves a laughing-stock, as did the Grangers, by demanding a high price for their honey on the ground that they are *organized?*

A United States honey-producers' association with its members so widely situated must, of necessity, not only fail of its object, but make matters a great deal worse. Simply because a little handful of flour-producers on Fox river can control the price of a staple commodity, it does not follow that the bee-men of the United States can likewise control the price of an article that is not a staple, and with a steady increase of its production to contend with besides. Bee-men should be warned by the sad experience of others.

Macomb,⊸ Ills.

For the American Bee Journal.

Warming Bee-Repositories.

EUGENE SECOR.

During our coldest weather it is often desirable to heat our bee-repositories. The cheapest way in which this can be done, and at the same time produce the desired result in health and comfort to the bees, is worthy of consideration. Some use a hard-coal stove, and some, I believe, an open fire in a cellar fire-place. In large rooms where it is practicable to use either of these, I see no reason why they might not be economical and satisfactory. Others carry a hod of live charcoal into the cellar at every "cold snap." This I think can be improved upon by the use of an oil or gasoline stove. I have not used the latter, but I am using for the second winter, the former. I am inclined to the opinion that a common kerosene-oil stove, such as are used in a great many summer kitchens, is good enough for all practical purposes. So far, this winter, I have had to light mine only a few times. The temperature out-doors has dropped several times to about 30° below zero, but the cellar has been kept at as near 45° above zero as possible. When it gets below 40° I light the oil-stove. In a few hours the temperature of a room 12x20, and 7 feet high, will be raised 10°.

The cellar under my house is 32x40 feet, divided into four rooms. The partitions are studded, lathed and plastered. The house is heated with a soft-coal, hot-air furnace. The northwest room is occupied by that. The southeast room, cornering with the furnace-room, is the bee-cellar. It has no outside windows nor doors. It is Egyptian darkness from November until April. The heat from the furnace affects it but little, except that the whole cellar is kept dry by it. (Seed-corn is kept in the cellar.) As the grounds slope to the north, and the outside entrance and several windows are on that side, and as I do not try to keep any of the rooms from freezing except the bee-room (which is also the vegetable apartment), when the fluid in the thermometer gets to playing "bo-peep" down among the thirties, and continues those antics for two or three days, the bee-room will sometimes get a little too cold. Then the oil-stove is lighted. I find it so simple, so cheap, so easily controlled, so perfectly adapted to the needs, that I ask nothing better.

Forest City,♁ Iowa.

For the American Bee Journal.

Improving the Honey Market.

GEO. W. PENN.

I think that it is time for the bee-keeping fraternity to wake up, and do something to better the condition of the honey markets. What injures our honey market more than anything, is the small producers. Take my location for an illustraton, which will compare well with the whole country. A certain per cent. of all trades and professions in this town and country keep bees; the per cent. will run about as follows: Doctors, 3 out of 5; merchants, 2 out of 18; lawyers, 1 out of 15; shop-keepers, 4 out of 9; hotel-keepers, 1 out of 5; laborers, teamsters, etc., 12 out of 40; and farmers, 2 out of 5. Now but a small per cent. of all these people will pay any particular attention to their bees; so if they happen to get any honey it will be in bad shape for market, and they will almost give it away to get rid of it. Farmers sell broken lots of honey for 8 cents per pound, and take it in trade; and in large boxes, to be cut out as sold, they may get 10 cents per pound. So I am compelled to hold mine until all these lots are sold.

The merchants say to me that they would rather pay me from 3 to 5 cents per pound more for my nice one-pound sections of honey, but they are compelled to take it off the farmers' hands or lose their trade. So they cannot afford to pay much for it, and hence they sell it cheap, although I have been getting 12½ cents per pound in cash for my comb honey.

Of course it sells slowly as long as so much cheap, broken stuff is on the market. In making a delivery recently, of over 4,000 pounds to about 40 stores, I learned some new ideas. One was that the finest and nicest honey put up in the best shape has to take a "back seat." I called at one store, just after delivering 5 cases of one-pound sections, to tell them about the empty cases, etc. Not seeing any of my honey in sight, I began to wonder what had become of it so quickly. They told me that they did not know when the cases would be empty. In looking at it they concluded that it was such a nice lot of honey, and in such nice condition that they had thought best to keep it out of sight until all the other lots were disposed of. Of course I could not say anything, for they had paid me for my honey, and they had a perfect right to do as they liked with it.

Comparing the sale of extracted honey with that of comb honey, I have sold each year 5 pounds of extracted to 1 pound of comb honey. I always carry a sample jar, and fill it out of my bulk of honey, so I can truly say it is an exact sample of all of my linden honey, or white clover, or what variety it represents.

Our merchants are generally shrewd business men, and one can expect them to ask some questions; hence one must be posted, and have an answer ready for every question. When you once have a trade established with a merchant, and the merchant with his customers, on your brand of extracted honey, you will have no difficulty in selling.

In this manner I have sold, this season, 25 barrels of nice extracted honey. I have sold just about one-fourth as much comb honey. About the only way to successfully control the honey market, in my opinion, is to have one buyer in each market, and every store in that town or city to buy honey only from that one buyer.

In that way all stores can avoid being overstocked with a lot of broken and inferior lots of honey. These mess lots can be bought cheap by this buyer, and sold to some factory so as not to ruin the general market. In this part of the country there is too large a percentage of the people generally keeping a few bees, to make it profitable for any one.

Colfax,⊙ Iowa.

For the American Bee Journal.

The Season of 1886.

J. M. HAMBAUGH.

In the fall of 1885 I put into winter quarters 101 colonies of bees in my home apiary, and 17 in another apiary. My home apiary contains 85 Simplicity hives, and 16 Quinby hives, *a la* Dadant; the other apiary has all Quinby hives. I wintered all on the summer stands, removed all surplus combs from the sides, and confined the bees on from 5 to 9 combs; removed the burlap on the top of the combs, and placed strips ⅜ of an inch thick every 3 or 4 inches crosswise of the brood-frames, to admit the bees over the top of the brood-frames, which gives free circulation of air, etc. I then tucked side burlaps close and snug around the outside frames, letting them lap over the top of the brood-nest; and packed dry, hard maple leaves at the sides, and filled the cap. I also put long slough-grass around each hive, being careful not to obstruct the entrance.

Quite a number of my colonies were so strong that I could not confine the bees on less than 8 or 9 frames, in which instance I would place the division-board on the north side of the hive, and simply fill the caps with absorbents. I should have said before that the rear end of each hive was raised 2 or 3 inches higher than the front end.

The winter, though quite rigorous, was not so severe on bees as the one previous. There was intervals of moderation, that gave the bees a chance for flight. On Feb. 8 and Feb. 22 they had good flights; also on March 6 and March 15. I removed the wind-breaks, packing, etc., from March 15 to March 17, and found 6 dead colonies out of 101; generally speaking, I found the bees in splendid condition. Those that had gone into winter quarters strong in numbers, were in the best condition. Quite a number were found very scant of stores, and had to be fed. Two had died of starvation, 2 from being robbed in my absence, and 2 were too small numerically, and succumbed. One was in a Quinby hive, and 5 in Simplicity hives; the one in the Quinby hive was a mere nucleus when it began the winter.

The 17 colonies at my out apiary were simply prepared by putting the division-board on the north side of the hive, until the bees covered the combs fairly. I put ⅜-inch sticks under the burlap, and filled the cap full of dry leaves. These 17 came through in splendid condition. I equalized each and every hive with from 15 to 30 pounds of stores, according to their strength prior to packing, and I noticed, when overhauling them after all packing was removed, that while some of the colonies seemed to have an abundance of stores, I could scarcely notice any difference in their weight, many being scant and some destitute. Can any one give a reason for this (to me) strange phenomenon?

Early in the spring I removed the 15 colonies in Quinby hives to the out apiary, a distance of three miles, making an apiary of 32 colonies in Quinby hives; I kept each kind separate as nearly as I could. During fruit-bloom I bought 17 colonies of bees in box-hives, and transferred them to movable Simplicity combs. These 17 additional colonies I added to my out apiary, making 49 colonies in all, spring count. Vegetation was from a week to 10 days in advance of the previous two years. From April 25 to May 7 bees built up rapidly and gathered some honey from willow and fruit-bloom. White clover bloom made its first appearance on May 7, and bees gathered honey from it on May 12.

I worked the out apiary for extracted honey, and during the season I took 5,700 pounds from it, and increased the apiary to 56 colonies by natural swarming. The average per colony was 116 16-49 pounds, spring count.

Our fall harvest was almost an entire failure. My home apiary did not produce nearly as much as the out apiary, from the fact that within a radius of three miles it is surrounded with over 500 colonies of bees, and, besides, linden pasturage is not so good, and the bees in the Simplicity hives did not build up to the strength of those in the larger hives. This much has been gained from practical experience, and my conclusions are irresistible, that a hive is not perfect in its construction that does not give the queen her full capacity of egg-laying, and uninterrupted power of reproduction; and the surplus department must be made to accommodate the needs of the most populous colonies, or contracted to meet the requirements of the smallest.

The production of my home apiary was 3,416 pounds of extracted, and 400 pounds of comb honey in 1 and 2 pound sections. I worked 66 colonies for extracted honey, 11 colonies for comb honey, and 3 for queen-rearing. The increase was made by division and natural swarming, and amounted to 92 colonies.

Spring,⊙ Ills.

For the American Bee Journal.

Special Legislation for Bee-Keepers.

N. N. BETSINGER.

When Dr. C. C. Miller introduced this subject in the International convention held at Indianapolis, to the most of us it was a surprise that a man of so much thought and study should take the position of the desirability of obtaining special legislation for bee-keepers. Without premeditation, I found myself on the negative side of the question, staunchly denouncing such a course; but, upon reflection, and after reading all that has been written on this subject, I am conscious of the feasibility of such legislation, for the following reasons:

1. Because it is just and right, and we should demand protection from the Government.

2. We are public benefactors, producing a sweet by means of our profession that cannot be excelled for its usefulness, for the sustaining of both body and mind.

3. The production of the honey crop would be much larger, and could be produced at a less cost than at the present time.

4. The price of our product would be more uniform and more easily regulated, not by monopoly, but by the amount produced, and thus be more remunerative to us.

5. Bee-keeping is a science, and should therefore be upheld by our Government, which would encourage the attainment of perfection in our pursuit.

Marcellus,⊙ N. Y.

For the American Bee Journal.

Results of the Season.

S. VALENTINE.

In the vicinity of Hagerstown and southwest of it, the bee-keepers are jubilant over the results of the past season, whilst north and east of this place it was another failure. In the fall of 1885 my bees were put into winter quarters weak in numbers and very short of stores, and came out weak in the spring; but April being warm and pleasant, they built up very fast. May brought with it an abundant crop of all kinds of bloom, but very little honey, the weather being too wet and cold. On June 1 I had to feed 110 pounds of sugar in one of my apiaries, and to have done justice it should have been a barrel of sugar. About June 18 the honey-flow commenced, and continued until July 25, when the heavy rain-storms cut it short. After this we got no honey. I had plenty of fall bloom, but scarcely any honey was gathered after Aug. 1. The honey flow was not much over half its usual length, yet it was a good yield.

In the spring of 1886 I commenced at my out apiary with 68 colonies, 12 to 15 were weak, and the balance in fair condition. From this yard I took 2,000 pounds of honey in sections, and 3,000 pounds of extracted honey, and put into winter quarters 173 colonies.

In this apiary I took 2 colonies of Albino bees in April and worked them to see what could be realized from them; the one I worked for comb honey, and the other for extracted. The one worked for comb honey (counting it in honey and increase) netted me $112.30; the other, $56, although the latter was the most promising in the early part of the season.

I put into winter quarters 20 colonies from the stock worked for comb honey. They are all in good condition. If I live and my bees live, I shall keep a record of those 20 colonies, and report next fall. At my home apiary I used most of the colonies for queen-rearing, so I took only 2,000 pounds from it, most of it being comb honey.

Hagerstown,⊸ Md.

For the American Bee Journal.

That Organization for Bee-Keepers.

JNO. A. BUCHANAN.

If it can be made to appear that the interests of bee-keepers would be best subserved by forming a compact for the purpose of sustaining the price of their product, the sooner they organize the better. This course has been hinted at quite frequently since honey has been sold by so many at prices that have not justified or paid cost of production. It is claimed that this unhappy state of affairs should not of necessity exist; and that by legislation, or by the organization of an association for the purpose of holding up the price, would be the remedy for the existing trouble. As to the foolishness of any attempt at securing legislation in the interest of the pursuit, I would say such folly is unpardonable.

As to a "honey-producers association," and the possibilities of its power ever becoming so great as to be able to control prices, I have grave doubts. Mr. Baldridge says that producers should know what is a fair price for honey compared with that of other commodities, and then demand this price. He also intimates that this association of honey producers shall fix a price at which their product must sell. I would prefer to be left free to buy and sell in the open market of the world. I do not like the idea of being cramped or in any way hemmed in or dictated to.

"Fix a price" that would fairly compensate the producer. How could this be done? In one State the average yield of surplus honey may not be more than 25 pounds per colony, in another State the average would be 50 pounds. In this one case the honey sold at 20 cents per pound would be $5 per colony, which might satisfy the producer. In the other case, 15 cents per pound might be considered good enough. How would an association proceed to fix and regulate prices for each locality, and for the different grades offered for sale? Speculators would upset all the arrangements every time. No, this is not the way out.

Still another plan has been proposed, and that is to establish storage-houses where all honey produced shall be stored, then graded and held until the offers would justify, or rather satisfy the producer. In order to enable producers to hold out for the best prices, the association is to advance money to *the needy ones* on their consignments. If any bee-keepers are willing to go into such an arrangement, it appears to me that they have no confidence in their own business capacity, and therefore give their business into the hands of others to manage for them.

Some years ago a wool-growers' association was organized in this neighborhood. A wool-house was established first in Steubenville, O., and subsequently removed to Philadelphia, Pa., where a great many farmers sent their wool to await better prices—which they generally failed to get. A man in whom great confidence was placed was selected to manage affairs, and this he did so adroitly that he cheated them out of the whole business, the concern being left in such a shape as to entirely ruin financially a great many excellent men of this and other neighborhoods. Here the proceeds of a life-time of toil and struggle for a competency was swept away—all for lack of confidence in men to transact their own business.

Talk about the middle men and the commission men taking all the profits! This is the way I treat them: Last fall I drove into a town a few miles distant with a load of honey, and went to the principal dealer in honey and stated my price. Said he: "I can buy just as nice honey as that for 10 cents." "And you retail it for 20 cents do you." "Yes, and have no trouble to get it." "Well," said I, you *will* have trouble in the future." So at the house adjoining his store I commenced selling nice comb honey at 18 cents, and extracted at 12½ cents, or 10 pounds for $1. I visited this town once a week while my honey lasted, selling on each trip an average of 50 pounds of comb honey, and 450 pounds of extracted. It is needless to say that the sales of honey by middle men in that town was completely ruined.

My crop this season from 70 colonies was 2,000 pounds of comb honey, 5,100 pounds of extracted honey, and $30 worth of beeswax. About 15 days were spent in selling this honey from a peddling-wagon direct to consumers. The average price obtained was 18 cents for comb, and 12½ cents for extracted honey. By the time all my honey was sold the demand was just booming.

In conclusion I want to say that we will hear no more wails from bee-keepers about dull sales, low prices, and the need of a honey-producers' association, if every one who has honey to sell will go to work, and by a persistent effort sell his honey to his neighbors, and to all within a reasonable marketable distance. Let all pursue this course, and *keep it up*, and I will guarantee that in less than six months from to-day, they will be offered a paying price for their honey by commission men who will then be willing to pay for space in our bee-papers for the privilege of quoting the markets, or be left out.

Holliday's Cove,♁ W. Va.

Local Convention Directory.

1887. *Time and place of Meeting.*

Feb. 23-24.—E. Iowa & W. Ill., at Davenport, Iowa.
J. Wadsworth, Sec., Moline, Ills.

Mar. 3, 4.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bee-Keeping in Idaho.—F. H. McDonald, Star,♀ Idaho, on Jan. 31, 1877, writes:

My bees wintered well last winter on the summer stands without any protection. I had one swarm on May 3, and a second swarm on May 13. This winter so far has been favorable. My bees have a flight every week. So far the lowest the mercury has been was 6° above zero, and we have not had an inch of snow at one time, and but very little freezing.

Good Honey-Flow.—Henry Hohnadle, Chadwick,⊸ Ills., on Jan. 31, 1887, says:

I put out 30 colonies last spring, 3 of which were very weak, and I increased them to 46. We had a good honey flow, and I secured 2,000 pounds of white clover and basswood honey in 1-pound sections, about 1,000 pounds of fall honey, and have 1,000 pounds of unfinished sections. I sold my comb honey at from 12 to 13 cents in my home market, and 500 pounds of extracted at 10 cents per pound. My bees are in a bee-house in straw hives packed with straw under a shed.

My Experience with Bees.—K. H. Fell, Bloomington,⊙ Ills., on Feb. 4, 1887, writes:

I left 30 colonies on the summer stands in the fall of 1884, in what I thought good condition. In the spring of 1885 I had 3 weak ones left. In the fall of 1885 I had increased them to 8 good ones. In the spring of 1886 I found them all right, and during the season I increased them to 26 colonies, which are on the summer stands in good condition, and I took as surplus 600 pounds of comb and extracted honey, about an equal quantity of each; nearly all of which I have sold at 16⅔ and 10 cents per pound. I still have considerable surplus to feed and build up my apiary with in the spring.

Benefiting Honey-Producers.— A. L. Leach, Dwight,⊙ Ills., says:

I believe that honey producers would be much more benefited than in any other way, by controlling swarming as much as possible, and uniting to ship their honey to a single wholesale dealer in each city, who would be governed by a national committee, and give security to do honest work. Then let each ship what honey he cannot sell at home.

Basswood in Illinois.—J. P. Faurot, Hope,○→ Ills., writes:

I would like to ask the readers of the AMERICAN BEE JOURNAL, whether or not basswood ever yields much honey in the State of Illinois. Mrs. L. Harrison, of Peoria, said in a communication that it did not. I have no means of telling, as I live in a prairie country, but I thought of moving my bees to the timber if the basswood would yield so as to make it pay. My 33 colonies, spring count, yielded 3,300 pounds of white clover comb honey, with an increase of 20 swarms.

Bees Doing Nicely.—P. L. Gibson, Muscatine,○→ Iowa, on Jan. 21, 1887, says:

My bees are doing nicely. They are in a cave with the temperature at 40° to 41° above zero, inside, while it ranges from 10° to 30° below outside. I have 40 colonies, and although I think the cave is a little cool, it is perfectly dry; but my bees are not entirely quiet at that point. I received 40 pounds per colony, spring count; but on account of a dry summer I obtained no fall crop.

Glassed and Unglassed Honey.—B. E. Foster, Utica,⊙ N. Y., writes:

I was pleased to see Mr. Crandall's article on glassed and unglassed honey, on page 57. I have kept bees for 10 years, and if I should keep them 50 years no one would find a section of my honey on the market without glass; for if glass is put on clean it makes the honey look better. For my glassed honey I get about 3 cents a pound more than for the unglassed, because the latter leaks more, and when a case is opened it is all daubed up. I have kept store for 10 years, and the more nice honey I could show on the counter the more I could sell. I never had a complaint about glassed honey. About 14 to 15 cents is the right price for comb honey at wholesale. Extracted honey should never be sold for less than 10 cents per pound. Honey at 6 to 7 cents per pound is cheaper than "black-strap," the cheapest grade of molasses.

Bees Refusing Food.—Geo. W. Plinke, Louisville,♁ Ky., writes thus on Feb. 5, 1887:

I have two colonies wintering in a cellar; the temperature being about 40°. They are very quiet, and seem to be doing well, although they had only about 10 pounds of honey when I put them in the cellar. I gave them liquid honey, but they would not store it away. 1. What was the reason for their not doing so? 2. Would it not be best to raise the temperature in the cellar? 3. Would it be advisable to put them on the summer stands on March 1. 4. If not, would it do to put them out on some warm day, and put them back again in the evening?

[The reason your bees did not take the feed you gave them was because of the too low temperature, and besides this, they had natural stores within reach. I would not raise the temperature or make any changes, nor put the bees out until settled weather, as long as they are quiet, provided they can get at all of the 10 pounds of stores that their combs contained. In the condition you describe, they have stores enough to last until it is due time to put them out, when you can feed them readily. Whether or not they can get at all of their stores depends upon the shape of their hives, narrow, shallow hives with fewer combs are best. If, upon examination, you find they are out of available stores, I think in your latitude your fourth, and last proposition, might be expedient. — JAMES HEDDON.]

Bee-Keeping in Minnesota.—I. W. Rollins, Elgin,○→ Minn., on Feb. 8, 1887, writes:

I have kept bees in a small way for about 10 years, and have increased my apiary from 1 colony to 60. I commenced with the box-hive made of rough boards. I now have 8-frame Langstroth hives, and use two-pound and one-pound sections with wide frames. When I commenced to keep bees there was no white clover, and but little basswood within 5 to 10 miles, and bees had but little to gather honey from except wild flowers, and did rather poorly. There is a large amount of clover when the winters are favorable, and also a large amount of Alsike, and some buckwheat. From 50 colonies last spring I had 2,200 pounds of comb honey, 1,800 pounds of which was clover, and the remainder from fall flowers and buckwheat.

My Success in Bee-Keeping.—Milo George, Bowling Green,⟜ O., on Feb. 9, 1887, says:

I commenced the season of 1886 with 18 colonies, which I transferred from Gallup frames to American frames. I did not get my bees until the last of May, and had the hives and frames to make after that. I put 32 colonies into winter quarters, and they are all right so far. I got about 800 pounds of extracted and 100 pounds of comb honey. My bees are all in chaff hives.

Moving Bees a Long Distance.—John H. Shelt, Spearville,♀ Kans., on Feb. 7, 1887, says:

I came to Kansas last November from Ohio, and carried a small colony of bees with me on the cars, 900 miles, and brought them through all right. They have had two good flights since I have had them here. I keep them in a cave, and they are doing well.

Association for Honey Producers.—James Heddon, Dowagiac,♀ Mich., writes:

I believe that we owe a debt of thanks to Messrs. F. I. Sage & Son (page 71), and Mr. M. M. Baldridge (page 85) for their able articles on the subject of our interests as honey producers. Just compare Mr. Baldridge's article, on page 85, with the report of the decision of the members of the Northern Illinois Convention, as found on page 86, the middle of the last column. The report of their decision occupies three lines, and contains no argument or reasons; Mr. Baldridge occupies three columns, every paragraph of which is brimful of both. Whether or not we can stop a "comet," "corner" the honey market, or accomplish any other desirable purpose, after having held a hundred conventions devoted to the best ways and means to produce more honey in the United States, do you not think that we can profitably hold *just one* to discuss methods of disposing of it, at a living price, and prevent others from "cornering" *us?*

Convention Notices.

☞ The annual meeting of the Eastern Iowa and Western Illinois Bee-Keepers' Association will be held in Moore's Hall, 110 East 3rd Street, at Davenport, Iowa, on Wednesday and Thursday, Feb. 23 and 24, 1887, commencing at 10 a.m. Bee-keepers and those interested in bee-culture are invited to be present. Those wishing to exhibit bee-fixtures or honey, will please bring the same for inspection. J. WADSWORTH, *Sec.*

☞ The Pan-Handle Bee-Keepers' Association will meet at Wheeling, W.Va., in the K. of P. Hall, 1138 Main St., on Mar. 3 and 4, 1887.

W. L. KINSEY, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

One Dollar Invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. No demand for extracted, and very little for comb.

BEESWAX.—22c. R. A. BURNETT,
Jan. 19. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4¼c., and comb at 7@12c. per lb.

BEESWAX.—19@21c.
Jan. 31. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@14c.; 2-pounds at 11@12c. Extracted, 5@7c.

BEESWAX.—24 cts. per lb.
Jan. 21. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.
Feb. 11. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.; dark 1-lbs., 10c.; white 2-lbs., 11@12c. Extracted, 6c. Market dull.

BEESWAX.—25c.
Jan. 14. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.
Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

Mr. Geo. Pinney established the evergreen business in Sturgeon Bay, Wis., nearly 25 years ago. He now claims to have the only nursery of the kind in the State, and to do a business in that line second to none in America. His advertisement appears in another column.

Advertisements.

WANTED.—Three live men to work in an Apiary and Nursery.
7Atf. S. I. FREEBORN, Ithaca, Wis.

PRACTICAL Bee-keeper wanted for four months. Correspondence solicited.
7A3t. P. BALDWIN, Independence, Mo.

100 COLONIES of BEES

For sale cheap. Reason, too many.
H. NEUHAUS,
7A8t. Burlington, Racine Co., Wis.

HOW TO RAISE COMB HONEY.

Price 5 cents. You need this pamphlet, and my free bee and supply circular. 7Atf.
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

PURE Italians. Tested Queens, June, 1.25 each. $12 ⅌ doz. Full colony & tested queen, June, $6.
5A1y O. N. BALDWIN, Clarksville, Mo.

FOR SALE.—100 Full Colonies of Italian and Hybrid BEES, in 2-story Standard Langstroth Hives, at $10 per Colony. Four-fifths of the Combs are drawn out from Foundation in wired frames; all Queens reared under the swarming impulse, except a few superseded in full colonies. With the largest order (not less than 10) I will give an Excelsior Honey-Extractor: with 2nd largest (not less than 5), an Excel. Wax-Extractor and Uncapping-Knife—provided I sell my Bees. Bees shipped as ordered, and in the order they are in bee-yard. Remit by P. O. Money Order, or Draft on New Orleans. Correspondence & offers solicited.
Address, W. T. MADDOX, Alexandria, La.
6Atf

DON'T GET LEFT!—Nothing extends reputation equal to the brilliant Chromo Bee-Card. See page 77, or address.
J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

WANTED.—To confer with a reliable married man who has a good knowledge of Bees, with a view of establishing an Apiary near Boston. Address.
6A2t **BOX 151,** MILTON, MASS.

WANTED.—I cannot give my bees the attention they should have, and I am therefore anxious to obtain the services of a competent, reliable apiarist, to aid me. I want a single man. For further particulars address, **E. C. JORDAN,**
6Atf JORDAN SPRINGS, Fred Co., VA.

BeeKeepers
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OHIO.

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ALWAYS ON HAND.

A GREAT REDUCTION IN PRICE. Send for Price List. Cash paid for Beeswax. **A. F. STAUFFER & CO.,**
3Dtf STERLING, ILLS.

BEE-KEEPERS' Guide, Memoranda & Catalogue for 1887 **Free.** Reduced Prices.—Jos. Nysewander, DesMoines, Iowa.
5D6t

Queens. 1887. BEES. Queens.

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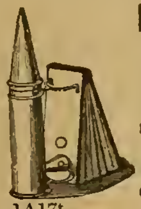

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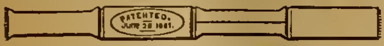
THE "BOSS" ONE-PIECE

SECTIONS.



Patented June 28, 1881.

WHILE attending the North American Bee-Keepers' Convention at Indianapolis, we learned there was a rumor afloat that the Patent on the ONE-PIECE SECTION had been set aside—circulated by unprincipled parties, to mislead bee-keepers. We would say in regard to this, that such is not the case. It is now before the U. S. Supreme Court, at Washington, and will probably be decided before a great while, when we will notify all through the Bee Journal. Until then pay no attention to rumors.

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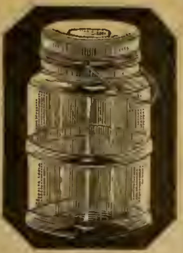

THESE Pails are made of the best quality of clear flint glass, with a ball and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

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A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

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(Mention this JOURNAL.)

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Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Send 2 cents for Circulars.

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. Feb. 23, 1887. No. 8.

Eggs-actly.—Our good friend, Dr. C. C. Miller, of Marengo, Ills., has sent us a box of the nicest of fresh eggs. His thoughtfulness is only exceeded by his generosity.

◆

Mr. Harry, of Cisne, Ills., has sent us a new queen-cage for shipping and introducing. It is a wire tube inclosed in a wood block, which is well ventilated; and when received, the tube containing the queen may be introduced without handling the queen.

◆

Does Extracting honey cause foul brood? is a question sent to the BEE JOURNAL by Mr. Skinner. He asks us to state the question, and let any one answer it who desires to do so. It is now stated. Let the "wise ones" reply.

◆

The Harrison Case in Canada stands in about this condition, says our correspondent: "It had been argued before it came to the notice of bee-keepers generally, and no further evidence could be given until the judge had given his decision, which he had reserved—and when given, that was against us." Whether it will be appealed or not is not yet decided.

◆

E. R. Newcomb's catalogue is a very unique and tasty pamphlet, and is a credit to him as well as the printer. The "catalogues" which the supply dealers are issuing *now* are about as much of a credit to the pursuit as those issued ten or fifteen years ago were a disgrace to it. This is very praise-worthy.

◆

Frank Leslie's Sunday Magazine for March is above the average of magazines. Illustrated articles on "Russian Schools," "Some Memories of the Tuileries," "A Buried Greek City in Egypt," and "Famous English Literary Women," give variety and interest to this number. There is an abundant store of short papers, poems, sketches, etc. The illustrations are numerous and beautiful.

That Legislation which we mentioned last week as being sought to be made in Michigan is stirring up the bee-men there. Mr. S. Shoup, of Coloma, Mich., has sent us a copy of the bill. It was introduced by Mr. McCormick, and recommended by the committee on Roads and Bridges. It reads as follows:

> A bill to prohibit the keeping of bees in large quantities near any public highway or dwelling house not owned or occupied by the keeper or owner of such bees.
>
> SECTION 1. *The People of the State of Michigan enact*, That it shall not be lawful for any person to keep to exceed five stands of bees within 25 rods of any public highway, or less than 25 rods of any dwelling house not occupied by such keeper or owner of bees.
>
> SEC. 2. Every keeper or owner of bees neglecting or refusing to comply with the provisions of the preceding section after due service of written notice shall be subject to a penalty of $5 for each day's neglect or refusal, which may be enforced and collected before any court of competent jurisdiction.

Mr. Geo. E. Hilton, President of the Michigan State Bee-Keepers' Association, writes thus:

> This bill, should it pass, would be a great calamity to our pursuit, and to the State as well. As it is almost a necessity to have our bees reasonably near both, and it simply means the extinction of the honey-bee, and a terrible calamity to the horticulturist, I feel it my duty to urge every bee-keeper in the State to write to their Senators and Representatives, asking their assistance in defeating any such bill. Just deluge them with letters. Use the best arguments at your command to prove that our rights are being infringed upon, and that we are alive to our interests, and demand our rights.

Mr. Shoup says: "I hope you will do all you can to help us defeat it. It seems strange that any sane man would undertake to get such a bill to become a law."

Mr. Charles Walker, of Bravo, Mich., writes thus:

> While we have been talking of forming an Association, and of "Legislation," a bill has been stealthily framed and introduced into our legislature which will be of great detriment to us, and unless we send in a prompt and vigorous protest, it may become a law. This bill aims a blow at our homes. The warning note has been sounded from Bell Branch, and we should now get up a remonstrating petition and send it to Lansing *at once*. The officers of our bee-associations should take the matter up, and every district should send in a petition against the Bill *at once*. Such an array of names should be sent as would surprise our legislators. The injustice of the Bill may be seen in the fact, that 5 colonies of bees can be kept close to the highway, but 30 or 40 colonies must be moved back 25 rods, whether the owner has land enough to do it or not! I will spend both time and money to defeat this Bill, and hope all other bee-keepers in our State will do the same. "To be fore-warned is to be fore-armed."

Prof. Cook is the man to look after the interests of bee-keepers. He is near the State Capitol, and knows just how to manipulate matters to prevent any injustice being done to bee-keepers. He also has the will as well as the sense of justice and right. Above all others in Michigan, he is the bee-keepers' friend. We commend the whole case to him.

◆

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook. This is the title of a new pamphlet of 40 pages, published by A. I. Root, of Medina, O. It is nicely printed, and profusely illustrated. It is intensely interesting, and should be read by all who are engaged in the production of maple sugar. Price, 40 cents. It may be had at this office.

More of the Wiley Lie.—Mr. John Crawford, of Pleasant, Ind., on Feb. 13, writes us the following:

> I send you a copy of the *Scientific American*, which has some more of the Wiley scientific pleasantry. I think it is really too bad, for a paper of the standing of the *Scientific American* to publish such falsehoods—doing an injury to an important industry. The article referred to is said to be the report of a conversation between Health Commissioner De Wolf, of Chicago, and an *Evening Journal* reporter. Bees have wintered well so far, and have had a good flight for several days past.

From the article in question we quote the following, containing the allegations about comb honey:

> "There is no such thing in this city as the adulteration of articles of food, as a sanitary question," said Health Commissioner De Wolf, of Chicago, to an *Evening Journal* reporter...."I have heard, also, that honey was found in the comb in beautiful cuts, where neither the comb or the contents had ever seen a bee-hive. The comb was manufactured out of paraffine, and the cells were filled with glucose, but that is not a sanitary violation. It is a commercial fraud, for honey is glucose."

Mr. S. D. Webster writes thus:

> Mr. Editor, this is from your own neighborhood, and you had better get your Health Commissioner set right on the comb honey question, as he has evidently been taken in by the Wiley lie. I send it to you because I suppose you cannot see *all* the progeny of that pestiferous publication.

While a slander travels faster than lightning, a correction goes along like a snail. The damage done by that Wiley lie never can be repaired, or its influence counteracted. No matter what is said to the contrary, it will be regarded as true by thousands, and be quoted by them, as though Wiley was "authority"—instead of being convicted by his own confession of lying without the least shadow of an excuse. Dr. De Wolf is another of the victims of quoting his so-called "scientific pleasantry."

◆

Mr. Henry Cripe introduced a new "queen" into his hive at North Manchester, Ind., on Jan. 29, 1887. The BEE JOURNAL wishes the bride and groom a long and happy life, and hopes that "the queen" will ever enjoy the love and esteem of her present admirer; that the "hive" will never "run short of stores," or be overtaken by any calamity! Now is a good time to enjoy "the honey-moon;" (for soon "the flowers that bloom in the spring" will call them to the labors and toils of the apiary! Then they as well as the bees must work for a good harvest.

◆

Catalogues for 1887.—Those on our desk are from

Henry Cripe, North Manchester Ind.—18 pages—Apiarian Supplies.

John Nebel & Son, High Hill, Mo.—8 pages—Bees, Queens, and Bee-Keepers' Supplies.

B. J. Miller & Co., Nappanee, Ind.—16 pages—Hives and Apiarian Supplies.

James M. Hynes, Stewartsville, Ind.—12 pages—Bees, Queens, and Bee-Keepers' Supplies.

J. C. Vaughan, 146 West Washington St., Chicago, Ills.—72 pages, large quarto—Flower and Garden Seeds.

Charles F. Uhl, Millersburg, O.—4 pages—Bees and Queens.

Joseph E. Shaver, North River, Va.—16 pages—Bee-Keepers' Supplies.

Edward R. Newcomb, Pleasant Valley, N. Y.—34 pages—Bees, Hives, and Bee-Keepers' Supplies.

Oliver Foster, Mt. Vernon, Iowa—12 pages—Queens, Bees, and Supplies for the Apiary.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Building up Colonies in Spring.

Query, No. 377.—What method do you pursue in the arrangement of the combs in the brood-chamber in building up colonies in the spring? In other words, in spreading the brood do you pay any attention to the relative position of combs containing bee-bread, with those containing eggs or hatching larvæ? If so, how do you arrange them when putting in the extra combs?—W.C., Ill.

I simply add frames as needed, placing them next to the brood.—A. J. COOK.

Move the combs outward and put an empty comb in the centre. Leave the pollen where it belongs, on the outside frames.—DADANT & SON.

I aim to have the combs containing the least amount of brood on the outside, and that usually includes the combs containing pollen.—C. W. DAYTON.

I do the most of my spring work in the fall, before bees go into winter quarters. I pay no attention to the bee-bread; the bees will attend to that.—H. D. CUTTING.

I put the empty combs in the centre of the brood-nest, which keeps the bee-bread in the same relative position to the brood as before. However, I think it matters little where the bee-bread is.—G. M. DOOLITTLE.

The combs to be added should be placed between those having the most sealed brood, and those having much bee-bread kept close to those having the most unsealed larvæ. If the colony is not very strong it is always best to add the needed combs at the side.—G. L. TINKER.

By commencing at page 11 of "A Year Among the Bees," you will see that I do not do very much spreading, and when extra combs are added they are generally added outside the brood-nest.—C. C. MILLER.

I do not "spread the brood," because I believe my bees build up more rapidly by being allowed to follow their own instincts, which leads them to concentrate and pack closely the brood in the early season. If the brood-nest has been contracted, I simply add combs at the side of the brood as fast as the bees can cover them.—G. W. DEMAREE.

If your colonies are in good condition, with plenty of stores, and with prolific queens, the "let-alone method" you will find to work the best in the end. Years ago, the "spreading brood" furor consigned many colonies to the shades. In no cases should the brood be spread faster than the bees can cover it. The frames containing pollen should be placed on the outer border of the brood-nest.—J. P. H. BROWN.

I do not approve of the so-called spreading of the brood in the spring. If extra combs were needed early in the spring, I would put them at the side of the brood-nest; later, if the colony were storing, I would put the combs (not too many at a time) in the centre of the brood-nest. Judgment must be used in this matter. With a sectional brood-chamber hive, the brood-nest can be safely enlarged by placing a section beneath that already occupied.—W. Z. HUTCHINSON.

I do not practice spreading brood. With the brood-chamber made in two horizontal sections, when the queen needs more room I add the second section below, which is in the direction the queen naturally extends her brood-nest, but can have no tendency to cool off the brood already in the other half of the brood-chamber.—JAMES HEDDON.

I do not think it will make any real difference how the frames are placed as regards the matter of bee-bread. I do not use the "spreading" at all; my plan being to build up by adding frames of brood taken from colonies that can spare them. The main point with myself is to keep the brood in the centre of the cluster, so that it will have all the heat possible.—J. E. POND.

Frames as needed can be placed in the centre of the brood-nest, or at the outside. "Spreading the brood" is often disastrous, especially unless practiced by an expert.—THE EDITOR.

Number of Frames in a Hive.

Query, No. 378.—Will it do to work 9 frames in a bee-hive only 11½ inches wide, inside measure? If so, what would be the proper width of the frames?—H.

Seven-eighths of an inch would be the proper width.—W. Z. HUTCHINSON.

No. Such a hive should not contain over 8 frames.—DADANT & SON.

I use 13½ inches for 9 frames, and I prefer it to any other distance. I do not think that you would be successful with the distance you propose.—G. M. DOOLITTLE.

You can get the 9 frames in the 11½ inches, with a ⅞-inch frame, but it will be close work. It will give you better satisfaction to use 8 frames.—H. D. CUTTING.

I should prefer only eight. Nine would necessitate too much crowding. I always have my frames ⅞ of an inch wide.—A. J. COOK.

I have never tried 9 frames in 11½ inches. Seven frames in 9 inches worked well when they hung very true. They did not always hang true, so the bees occasionally removed the brood and cells from the side of a comb.—C. W. DAYTON.

Yes. If by width you mean depth, I would say 13 inches; but, then, such a frame would be very inconvenient to handle—too deep.—J. P. H. BROWN.

I have failed to see any advantage from spacing brood-combs closer than 1⅜ inches from centre to centre, and I do not believe there exists any.—G. L. TINKER.

It will make very close work, but if everything is very true and straight you may succeed with it. From ⅞ to 1 inch for the top-bar is the proper width.—C. C. MILLER.

How large your brood-chamber should be depends upon the style of the hive, character of your location, and your proposed plan or system of management.—JAMES HEDDON.

By shaving the combs to ⅞ of an inch in thickness as advised by Mr. J. E. Pond, 9 frames can be worked in the space you mention, but the combs should be wider apart for wintering. When combs are worked "close" to crowd the honey out of the brood-chamber into the surplus cases, it is handy to work a division-board at one side of the hive to facilitate the removing of the combs, when there is a necessity for removing them.—G. W. DEMAREE.

I think it would be impossible to so work, as great difficulty would be found in removing and replacing the frames. I am in favor of working with ⅞-inch wide frames, spaced just bee-space apart. I work 10 frames in a 14⅛-inch wide Langstroth hive, and use a dummy to fill in the extra space. This allows me, by removing the dummy first, to take out and replace frames with ease to myself and safety to the bees.—J. E. POND.

The proper width of brood-frames is ⅞ of an inch. From centre to centre it should not be less than 1⅜ inches.—THE EDITOR.

Tin-Rests in Surplus Cases.

Query, No. 379.—What are the objections, if any, to the use of tin rests, folded T-shape, for supports to the sections in surplus cases?—J. R., Ind.

If made properly out of heavy tin-plate I see no objections to them.—J. P. H. BROWN.

They are very good.—DADANT & SON.

I do not know of any—A. J. COOK.

I do not know of any serious objection if the supers are made right. See page 38 of "A Year Among the Bees."—C. C. MILLER.

The obection to T-shaped tin-rests with me would be that it leaves a space between the sections, and could not well be used with side-opening sections.—G. L. TINKER.

The only objection of any account that I know of, is that the sections will be largely covered with propolis, and require a vast amount of labor to properly clean them. This, to me, has been a serious objection, and has prevented me from using such supports.—J. E. POND.

They are very liable to get bent out of shape. I dislike to adjust the sections to them—it requires so much care in doing it. They have other disadvantages and some good points; but not enough to offset their bad ones.—JAMES HEDDON.

It is a mere matter of taste. The tin **T** supports answer every purpose. I have used them in some of my section-cases for several years. By their use separators can be worked between the rows of sections, the separators resting on the stems of the inverted **⊥**'s. And if an invertible case is wanted, another set of the tin **T**'s can be secured between the cross-rows of the sections at the top of the case, thus securing the sections in a central position in the case, and holding them firmly, no matter which side of the case is up.—G. W. DEMAREE.

Their liability to bend is the greatest objection to their use.—THE EDITOR.

Handling Cross Bees.

Query, No. 380.—Can very cross bees be successfully handled without getting many stings? If so, how would you proceed with the fiercest kind of hybrids?—L.

Smoke them until thoroughly subdued before the hive is touched.—W. Z. HUTCHINSON.

Yes. Use a good bee-veil and smoker.—A. J. COOK.

Have a cheap boy to handle a good smoker while you handle the bees.—DADANT & SON.

Take the fight out of them by an application of plenty of smoke before you open the hive. Use a bee-veil.—J. P. H. BROWN.

Provide yourself with a very large smoker; then remove the queen and introduce one that would give less trouble.—H. D. CUTTING.

This requires too long an answer for this department. I have treated it to my own satisfaction. See my book, under the head of "Subduing Bees."—JAMES HEDDON.

I always got lots of stings with such bees, and when too cross I pinched the queen's head off. A late number of the *British Bee Journal* recommends oil of winter-green rubbed on the hands to prevent stings. This is from no less authority than Mr. Frank Cheshire.—C. C. MILLER.

I never had any bees that I could not subdue, except the Cyprians. Blow smoke into the entrance, at the same time gently jarring the hive by pounding on it with the fist. Wait two minutes and proceed to handle them as you please.—G. M. DOOLITTLE.

I think they can. It should become second-nature to always face the breeze when in the apiary with the face thrown forward and downward. Use smoke for a protector. I approach a hive very suddenly, blow the smoke in at the entrance a few times to scare the guards, then get off the covering as quickly as possible, and as I always get the first shot, three whiffs of smoke there sends them pell-mell down into the hive. While they are getting over their scare and coming back to the top of the hive, I manage to get one or two frames out. The main point is to move deftly, gracefully and surprisingly swift under cover of the smoke.—C. W. DAYTON.

I can manage such bees without being often stung. Having them in a properly adjusted hive, I would leave them to themselves except to adjust the surplus cases, and to remove the honey, doing the work when the bees were busy at work in the fields. With the "fiercest kind of hybrids" my plan would be to pinch off the head of the queen and change the strain of bees.—G. W. DEMAREE.

I think they can. Use Scotch snuff in a roll of cotton cloth in the smoker, or tobacco in any other convenient form with shavings. If there is a liability of robbing, the smoking should not be done until towards evening. There is little danger of smoking them too much, as during the night following they will fully recover so as to defend the hive in the morning, and will be good bees for about a week after. I have seen nothing that will take the fight all out of bees like tobacco, and it does one good after being stung to use it.—G. L. TINKER.

My experience has been that very cross bees will sting when handled, and I have never found any means of preventing them from so doing. To handle them I use gloves and a veil; this does not prevent the stinging, but does protect me from their stings. I know of no other way to protect one's self, other than, don't keep such "fellers."—J. E. POND.

A good veil and a large size smoker are the essentials. The best way is to get rid of irascible bees.—THE EDITOR.

System and Success.

☞ All who intend to be systemstic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For	50 colonies (120 pages).............	$1 00
"	100 colonies (220 pages)......	1 25
"	200 colonies (420 pages)............	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○+ east; +○ west; and this ♂ northeast; ⌐○ northwest: ○⌐ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

A Screen-House for the Apiary.

JAMES M'NEILL.

As all thrifty bee-keepers are laying plans and making preparations for the coming season during the leisure of winter, I will offer a few suggestions in regard to a screen-house, and advise every bee-keeper to get one ready for use the coming season. I got my idea of the screen-house from Mr. Heddon's book, "Success in Bee-Culture." And here let me suggest to those who hesitate about spending 50 cents or a dollar for bee-literature, that there is no investment from which they are so likely to receive a big return. This one idea from Mr. Heddon's book was well worth ten times the price of the book to me the past season.

Owing to the drouth the honey-flow ceased entirely about the middle of July last season, and the bees of my out apiary became so demoralized that I could do nothing at all with them in the way of taking off honey. Work as quickly as I might I could not go through more than two hives without having a desperate case of robbing on my hands; and if there is anything in this world which is down-right aggravating, it is trying to take honey from the hives when the air is full of robber bees.

In my despair I thought of the screen-house, and soon had one modeled after Mr. Heddon's description with some modifications. His house is a stationary affair with a board roof, and all his hives have to be carried to it for manipulation. Mine is made much lighter, so that it can be moved along to suit my convenience, ten or a dozen hives being manipulated at one place. My screen-house is 5x6 feet on the ground, and 6 high. I would have made it 6x6 feet square but for lack of room among my hives. The two sides are covered with wire cloth, the upper half being double according to Mr. Heddon's directions. But if I were making another one I would have the lower half double instead of the upper, as the manipulated hive, being placed on the ground, the outside bees are attracted to it, and cluster on the wire-cloth as near to the hive as possible, while the bees inside are attracted by the noise of those outside, and cluster opposite them on the inside, so that if any honey is passed out, it is done through the lower half of the screen.

The two ends of my screen-house are covered with thin muslin, and the top is also of muslin fastened to two light sticks 6 feet long, and kept taut and in place by a pin through the ends of these sticks into the upright side-pieces. A door which swings on hinges is placed in one end. The sides of the house are, of course, separate, and are held together by two Van Deusen hive-clamps at each corner.

No implement for the apiary which I have ever made—not even excepting the solar wax-extractor—has proved its usefulness so completely as this screen-house. When robber bees are rampant, and stings are as plentiful as huckleberries outside, all is serene within. I have an idea that the bee-keeper is stung more by robber bees than by the bees of the hive which is operated upon, though of course they are more savage when robber bees are ready to pounce into their hive as soon as it is opened. One can work all day in the screen-house and scarcely receive a sting, and this I regard as a great, though incidental, recommendation. The fact that we can go right along with our work during a dearth of honey, when without it all operations would have to be suspended, is what makes the screen-house so valuable. Hence I advise every bee-keeper to build a screen-house for next season's use.

Hudson, N. Y.

For the American Bee Journal.

Making Honey-Vinegar.

T. F. BINGHAM.

Long ago I was requested to describe my plan of making honey-vinegar. To simplify the whole understanding of the matter, it is well to state just how much honey is required to make a gallon of the best vinegar made. One pound of honey and one gallon of water will just make the article required. That is, 29 pounds of honey will make—water being added to it enough to fill a regular 32-gallon barrel—one barrel of the best vinegar. The vessels I use to make it in are common alcohol barrels, which I find at drug-stores. I saw out one of the barrel heads and paint the outside to prevent the iron-hoops from being destroyed by the vinegar.

The barrels and vinegar are kept in my house-cellar, so covered with burlap as to keep the dust out and let the air in. One year converts this water and honey into the choicest vinegar. More age will make it sharper or more acid, but at one year old it is fine enough for any use.

Of course sweetened water from washing honey-cappings is the most common waste of the apiary, and to utilize it is presumed to be the desirable matter in connection with honey-vinegar. Still, with the low price of honey bee-keepers may find a reasonable outlet for some of their poor honey, such as is unfit to sell as an article of delicate luxury for table use.

To know how sweet water slowly sweetened and constantly fermenting should be, is one of the difficult features of converting the washings of cappings into vinegar. An instrument used by brewers known as a Saccharometer, would, of course, show the amount of honey in the water, even if the taste did not fully determine the increasing sweet in the water as it was souring. I have made a few cheap instruments to be used by those who wish to know how sweet water should be for vinegar, and may be relied upon as permanently accurate for such test.

Vinegar made of honey may be evaporated, and the honey will candy in the residuum, and may be so reclaimed when honey is more prized than vinegar. So it will be seen the honey still holds its place, even though it has previously been the most perfect vinegar.

I trust that the above may enable many to obtain the one article of universal use, in its known pure state.

Abronia, Mich.

For the American Bee Journal.

The Question of Bee-Legislation.

J. E. POND.

Dr. C. C. Miller is undoubtedly honest in his opinion that the question of who may and who may not keep bees in a given locality, should be settled by legislation, but he fails as yet to point out the legal remedy in the form of an enactment. For myself I fail to see just how any statute could be framed that would work justly, or that could be so applied as to prove equitable. In the first place, bees are only property so long as they are within the immediate control of their owner. Secondly, there is no way by which bees can be kept within such control, except by becoming the absolute owner of all the land within such a radius from an apiary, that no flight could be extended beyond the territory actually held in fee by the bee-keeper. Thirdly, bees as foragers are neither respecters of persons or property, and cull or pillage nectar from any spot where it can be found by them.

Taking the above points into consideration as factors in the problem, how can it be possible to enact a just and equitable law to govern the matter? To say that one man may keep bees to forage on another's territory, while that other shall not keep them to forage on his own land, would most certainly not be democratic, and most positively would be unrepublican. The law made applicable to keeping bees, should certainly not differ from the law applicable to other property, and any law that tends to reduce competition tends also to the production of monopolies.

I think, as does Mr. Heddon, that the law of the "survival of the fittest" is the only law that can be applied equitably; and if some one meets with a loss by reason of his inability to work as easily, cheaply and understandingly as does another, that it is a matter that is common to all lines of business, to all trades and to all professions; the weaker must go to the wall. As well might a law be enacted to protect some lawyer, doctor or merchant who had not sufficient ability to protect himself, as to protect a bee-keeper from competition.

Again, where shall we begin, and where shall we end? For myself I believe that we have laws enough now, and that instead of making more it would be far better to wipe out entirely many of those that now exist. Who can draft any law in regard to bee-keeping, that is better than the law of honest competition?

Foxboro, Mass.

For the American Bee Journal.

The Honey Market in California.

M. SEGARS.

I have read with great inrerest the articles regarding a national organization for the purpose of obtaining better prices for our honey. For one I must say that if such a union can be formed to work harmoniously for the interests of all sections of our country, it would doubtless do much good. But what is the prospect of being able to secure such co-operations? Surely, the present membership of the "National Bee-Keepers' Union," especially from this State, does not appear in the least encouraging.

Our fellow-bee-keepers here are sadly demoralized by the low prices of honey and other obstacles, and seem to prefer the slumber that reduces their property to naught, rather than labor for their own welfare. I have been exclusively engaged in the honey business for the past twelve years as a producer and shipper. My own crop for 1886 was about 40,000 pounds, most of which was extracted. I shipped to various markets about 350,000 pounds; most of this honey was extracted, of the best quality and sold here, on the car, for the pitiful prices of 3⅛ to 3⅜ cents a pound. Deduct from these prices the cost of packages and labor, and what an insignificant profit remained! This may explain the demoralized condition of bee-keeping in California, and why Italian bees in movable-frame hives can be purchased for less than $1.50 per colony.

The frequent suggestion of making a market at home for our honey, is good, but in that regard I will say that honey is no luxury in California households. We can do but little in placing our large productions in home markets in this thinly settled country. The production of this county for 1886 was about 540,000 pounds of extracted and 130,000 pounds of comb honey, taking the third rank of counties in this State. We were obliged to sell, and the bulk of our crop had to be exported. The many bitter experiences of making consignments to commission houses have quite destroyed our confidence in that class of mankind, and we are no longer lured by their tempting quotations.

The market reports of commission men have proven themselves to me to be *glaring falsehoods.* In shipments of honey, covering a period of twelve years, I have never succeeded in a *single instance* in getting the prices appearing in the market reports. I have known commission houses to make returns of all prices under quotations as low as to bring the consignor *in debt* $1.90 on a shipment of nearly 8,000 pounds of extracted honey, which sold for $8.10 above the freight and commission, and bill rendered for melting, having candied, $10.

If there is no way to secure better prices, and with some degree of certainty, send us some *still*, enthusiastic brother, and he can become the king bee-keeper upon a small investment.

San Bernardino, Calif.

For the American Bee Journal.

The Nebraska State Convention.

The Nebraska State Bee-Keepers' Association met in Lincoln, Nebr., on Jan. 12, 1887. The convention was called to order by Vice-President J. G. Hodges.

Owing to the slow arrival of members, the regular order of business was postponed until the next day, and the meeting then listened to an essay by Mr. A. D. Reller, on "Wintering Bees," which was followed by a discussion.

Mr. Muir said he had found it to pay to ship honey to city markets to be sold on commission.

The members present were requested to make to the Secretary a special report of their success and failures for 1886.

SECOND DAY.

Called to order by the Vice-President at 9 a.m. The finance committee, having reported favorably the reports of the Secretary and Treasurer were read and accepted.

The committee on foul brood, appointed at the last meeting, reported that Mr. Henry, of Filmore county, whose bees were thought to have foul brood, had destroyed his bees by fire.

After the enrollment of members, Prof. Bessy, professor of botany at the State University, delivered an address, showing how bee-keepers and botanists could work to each other's mutual benefit; and extended an invitation to the members to visit the University, which was accepted and appreciated.

Mr. E. Kretchmer, of Coburgh, Iowa, gave an instructive address on the past and present apiculture in the West.

President W. F. Wright's resignation having been offered by letter and accepted, Mr. R. R. Ryan, of Bradshaw, was elected president of the association. The remainder of the day was spent in discussing the following subjects: The solar wax-extractor and wax rendering; best method of increase; what time in the year is it best to exchange queens; what strain of bees is the best for business; and the best method of creating a honey market.

THIRD DAY.

Called to order by President Ryan at 9:30 a.m.

The session was devoted to special business, and considerable wrangling and personal feelings cropped out by some member, who was modestly rebuked.

The association then adjourned to meet in Lincoln on Jan. 11, 1888, for their next meeting, and then proceeded in a body to visit the State University.

H. N. Patterson, *Sec.*

For the American Bee Journal.

Legislation for Bee-Keepers.

W. J. CULLINAN.

This subject is one of considerable importance. However, I am of the opinion that it would *not* be feasible to secure such legislation, from the fact that it would be *impossible.* As well ask Congress to give to some certain man in each of the counties of the different States of the Union, say the pioneer sheep-raiser of each respective county, the whole, sole-right to that county as a territory in which to rear sheep. It would certainly be very agreeable to the one securing the set-off, as he would have a good local demand for his wool and mutton. But would not the thousands "left out in the cold" by such a law soon "rise in their might" in opposition to such unjust legislation? And yet the passage of such a law could, in my opinion, be as easily obtained as the passage of one giving to certain bee-keepers an exclusive right to the territory which they happened to occupy.

Were one greedy enough to wish it, it would certainly be very "desirable" to have a township or two set off to him as his exclusive territory in which to pursue his chosen occupation; you might then go just a step further and say that no one else should sell honey within the same territory; another step and say that no one living within its limits should purchase honey outside that territory—in fact, it would be difficult to draw the line, when once well started, as to where to *stop* "legislating." And about the time one got everything "fixed up" to suit his select exclusive ideas, the thousands of bee-keepers who did not happen to be among the pioneers of their localities, would raise such a howl with their congressmen, I think, that it would soon become altogether "feasible" as well as extremely "desirable" to have that law rescinded.

For years Congress has been endeavoring by appropriate legislation to check the great cattle companies of the West from monopolizing large areas of that vast domain to the exclusion of actual settlers. Every honest-minded man will uphold the Government in the course it is pursuing. And now should we bee-keepers, who are supposed to possess in a somewhat unusual degree the noble traits of honesty and fair-dealing, as well as a brotherly regard for members of the craft, ask Congress to foster and sustain that which it has long been trying to quash, viz: monopolies? For a bee-monopolist, while he might not be as big a man, would come under the same head and be in every way as bad a man as the sheep-monopolist, the cattle-monopolist and the land-monopolist. And so, I say, away with the idea of monopolies of every kind and class!

Let every one keep bees who wishes to; and make them pay if he knows how. And when the crop is shortened by over-stocking, and the prices lowered by over-production, the weak-kneed and wavering will forsake the field to those who have an abiding faith in the pursuit, and the perseverance to stay with it.

Mt. Sterling, Ills.

For the American Bee Journal.

The Honey-Producers' Association.

J. V. CALDWELL.

Mr. Baldridge's article, on page 85, needs, in my judgment, a brief answer. He says that the Elgin factory-men meet each week to control and fix the price on butter. But it seems to me in this he must be mistaken. In the general market, the law of supply and demand must be the ruling power. He says that for Monday, Dec. 20, 1886, the price of butter, as fixed by the factory men, was 30½ cents. Very well; this price was no doubt for the finest grades. Now suppose they had put the price at 40 cents, does Mr. B. think that they could do so and still hold their trade? I have to-day a price-current from a Chicago commission firm, and I notice that creamery butter is quoted at 28 to 30 cents per pound, and that, too, with no mention of Elgin butter; and I have no doubt but what good butter shipped from any point brings that price, thus showing conclusively that the market will bear that figure whether it should chance to be made in Elgin or Rockford, or any town in the country.

But again, butter is one of the necessities in every family in the land, while the finest honey is relished by comparatively few. Honey is a luxury, and in my opinion it will continue so to be, and we may just as well face this fact one time as another. My experience in my own market confirms me in this. When it sold in years past at 18 to 20 cents per pound, a certain amount was consumed, while now with nice comb honey selling at 11 cents I cannot see that the demand has increased a particle. When a man enters a store his inquiry is for staple articles—butter, sugar, coffee, etc. If he chances to see the honey he may say "That looks nice, don't it?" and that usually ends it.

Now in this matter I do not wish to discourage any real practical suggestions. If a society can be formed to distribute our product evenly throughout the country; to keep us informed as to the yield in general; and to benefit producers in any real practical manner, I should certainly give it my hearty sympathy and co-operation.

But, says Mr. B., "When our large honey-producers make up their minds to organize and pull in one direction," etc., then his one price object may be accomplished. Well, whom does he call "large producers?" Suppose one party producing 20,000 pounds becomes a member, while in the same place are 20 small bee-keepers producing each 1,000 pounds who do not join the association, would his 20,000 pounds have the effect of raising the price any more than the same amount in the hands of the small bee-keepers would in lowering it? I think not.

Now, in all candor, Mr. B. had better leave this matter of a fixed price to the inexorable laws of supply and demand.

Cambridge,⊸ Ills.

For the American Bee Journal.

Winter Quietude of Bees.

JOHN CRAYCRAFT.

I think there need not be a doubt but what at a season of cool or cold weather, with no flowers and no brood-rearing, bees take on a state of quietude even in this warm climate of South Florida. It was warm on Christmas day, and the temperature was 72° in the shade, yet I noticed very few bees flying, and not having examined or even opened any hive for some four weeks at a time, I went over them, equalizing the stores of the colonies as to their individual wants; so that all would have plenty until the flowers come again.

I opened the hive of a fine colony of Italians, and found them in a state of quiet, almost a death-like stillness, but in a few moments they were in an active state. I continued the examination on other colonies, and found them in almost the same state of quietude, although at the same time there were a few bees around the entrances, occasionally one passing out and in. At this time there is very little brood, there being no source of honey, and from this I am led to think that even in a warm climate like this, when brood-rearing is stopped, and no honey in the fields to gather, even though it may be warm and very pleasant, the bees will take on this repose and remain so at intervals of several days at a time, and then come out on a general cleansing flight, return to the same quiet until instinct tells them that it is time to commence their preparations for the propagation of their race.

To further confirm my examination, I know of a very strong colony of the common small yellow-jackets that make their home on the ground. I went to it to learn something of them, and I found a few at the entrance, as it were, on guard, but none passing in or out. I thought I would stir them up a little and see if they were at home. I did so, and I found in a few minutes that there were more at home than I desired!

So it is with the toad; it could hop every day in the year, but it does not. They can be found in some quiet place taking a little rest. It is the same with the snake, lizard, and all the small reptiles; even the so-much-talked-of aligator will spend several weeks, and some say here several months in quietude, after obtaining a square meal on a few pine-knots to keep his stomach from collapsing. I think that we need not doubt but what bees do hibernate, but I think they do so only at times when there is no brood-rearing going on, or very little, at least.

Altoona,⊙ Fla.

For the American Bee Journal.

Apicultural Patents.

A. N. CLARK.

In the article on "Apicultural Progress," the writer says: "Whoever looks back over the great progress of apiculture during the last two decades, will not fail to discover that inseparably connected with this progress is the one of mechanical inventions. Perhaps I might well have said that this invention constitutes the major portion of that progress."

To the above we may heartily answer, yes. But are we to suppose that we would now have all these mechanical conveniences without patent laws to protect the inventor? I think that a great many of our labor-saving devices would be unheard of in the absence of governmental protection; for, in the first place, there would be less inventing, and, in the second place, many inventors would try to keep their inventions a secret in order that they might more easily compete with others in the same business. But with proper protection the inventor advertises his new or improved utensil. So that every one has an equal chance with his neighbor. Again, the proper protection of the inventor induces mechanical knowledge to spread very rapidly; hence, it acts as a great civilizer.

It is quite generally understood that a great many apiarists are strongly opposed to any one who will protect his property with a patent. There is an indirect and a direct reason for this opposition. First, manufacturers of apiarian supplies, who manufacture more than they originate, advise people not to patent their inventions; and these probably really considered it unfair to take out a patent, for, as Faraday said, "The force of the temptation which urges us to seek such evidences and appearances as are in favor of our desires, and to disregard those which oppose them, is wonderfully great." "It consists in the tendency to deceive ourselves regarding all we wish for." This error of judgment affects the anti-patent bee-keepers not only through the manufacturers, but in a direct manner also.

For those who oppose the patent system on the ground of monopoly, we have the authority of ex-commissioner of patents, Benjamin Butterworth, M.C., of Cincinnati, who says: "Not to exceed 10 per cent. of the patents issued by the Government of the United States prove valuable to the patentee. So that besides the expense of time, labor, material and cost of patent, the inventor runs a great risk for which he should when successful be substantially rewarded."

Mr. Heddon suggests an "Honorary Inventor's Rights System." But does it not appear to the reader that he has too much faith in the honesty of bee-keepers? Would it not leave the honest apiarist to compete at a disadvantage with the rogue?

My attention has been forcibly called to this subject of patents, by the appearance before Congress of a bill known as "Bill H. R., No. 4458," which, if passed, will strike a death-blow to inventors of apiarian implements.

East Le Roy,♀ Mich.

For the American Bee Journal.

The Use of Comb Foundation.

H. M. CATES.

"Does it pay to use foundation?" is often asked, so I will give my experience with it. My way of increasing my number of colonies is by natural swarming, and I hive the swarms that issue in June on empty frames. If it should be a good season they will just about fill the brood-chamber of a Langstroth hive. Where I hive swarms on old combs or foundation, each colony will store from 40 to 60 pounds of fine honey, and leave plenty in the brood-chamber for winter. Counting the surplus honey at 20 cents a pound (I never sold a pound for less), I have from $8 to $12 per colony; and deducting from 80 cents to $1 for foundation, leaves me a nice profit per colony. I have used foundation in sections in half sheets and ½-inch guides on the top-bars, and I found that it pays just the same in proportion.

The past season I placed from 1 to 2 frames of foundation in the centre of the brood-chamber, and as soon as I dared to spread the brood apart, I took out the outside frames that had little or no honey or brood in them, using them to hive swarms on, and getting the foundation drawn out better and more even in that way than in any other. I then hived the swarms on but 2 frames of old combs for the first 24 hours, placing at the same time on the top (using division-boards, of course), from 8 to 24 two-pound sections; this forced the bees to occupy the sections immediately. In this way I find that it is best to use only ½-inch guides in sections.

One thing that I have often noticed in hiving swarms on full sheets of foundation is, that in the centre of a hive, especially at the top of the frames, they will often build new comb on top of the foundation, instead of drawing out the cells to the proper length. This led me to try getting it drawn out in the early spring, and using old combs gave the queen a chance to commence laying at once, and forced the majority of the bees to use their wax in comb-building in the sections. This plan may be old to most bee-keepers, but I learned it by hard study and close watching, and I shall do the same thing this season. All the bees seem to be wintering exceedingly well so far, in this locality.

Shideler,♂ Ind.

For the American Bee Journal.

The Marketing of Honey.

T. H. CANTY.

On page 70 it states that the producer and consumer are both at the mercy of the retail dealers, as they usually pay in trade 10 cents per pound for honey (which is equivalent to about 8 cents), and retail it for 12 to 15 cents per pound. In this vicinity some are selling splendid comb honey for 7 cents per pound, and I do not doubt but some has been sold as low as 5 cents.

This reminds me of some honey I bought of a bee-man to retail at 15 cents per pound, and in a day or two the bee-man was around selling to my customers at 12 cents, so I was compelled to come down to his price. If bee-keepers want to keep up the price of honey they will have to get the retail dealers of their towns to help them sell their honey. Make prices with the dealers so they cannot afford to send after honey, and do not undersell them, for if they have any grit they will make you regret your promise. Sell all you can in home markets, and do not glut the large markets that make the prices on all produce.

The commission men, as a rule, do the best for their customers that they can, for that is their bread and butter, and on their name rests their business, just like the producer; if the latter's name becomes associated with adulteration, and it is said that he sells glucose for honey, his honey is not sought for.

Canty,♀ Dak.

For the American Bee Journal.

Can Bees Hear?

D. BRIMMER.

I think the idea that bees cannot hear is erroneous, for many reasons, and a few of those reasons I will try to state. One is, they do not emit the same sound in the act of flying at all times. For instance, an angry bee can be distinctly distinguished from one not angry. Some will say that is caused by their wings. Then I would ask, how do a few bees lead a large colony in a straight line to some tree previously selected a mile or more away?—a fact that I have known for a long time; also that a swarm can be stopped by creating sounds above that of the swarm and the leaders; but it must be continuous to be effective. This I know, for I have stopped many swarms after they had gotten well under way for the woods. If they cannot hear, how is it accounted for?

I have had swarms so intent on going that they tried it two days in succession, and were brought back and the queen's wing clipped before they would stay. Then, it is well known that a swarm will not leave unless the queen is with them. How is the knowledge of her presence communicated through the swarm, if they cannot hear?

Who has not heard the young queens piping as soon as the first one is hatched, and answering each other in quick succession, one a sharp, shrill sound, and the other a muffled sound—evidence that one is in confinement? After an experience of over 47 years in handling bees, and being a bee-hunter longer still, I am convinced that the faculty of hearing in bees is very acute—a thing, I think, that can easily be demonstrated.

Hoosick,♂ N. Y.

For the American Bee Journal.

Bee-Keeping in Cuba.

H. E. HILL.

Bee-culture, with the improvements of modern times, is a thing entirely unknown in this portion of Cuba, and our method of handling bees has created quite a sensation among the natives. One native, after watching the proceedings for a few minutes, called a friend, saying, "Come and see what strange people these are—how they play with bees!" Some of them say that "bees cannot do well when they are disturbed and handled in such a way." Another says when he discovers our secrets he will make "millions;" then a more enlightened brother informs him that the secret lies in "that kind of whistle (the smoker) that is worked with the hands;" saying that "he knows how to make them come or go with that thing."

I should like to give a description of a Cuban apiary, but to convey any idea of the appearance of those that I have visited, I fear is beyond my skill. I think of no better way, however, than to ask the reader to imagine a pile of hollow palm and cedar logs varying in length from 3 feet to 6, and in diameter from 5 inches to 2 feet, that have been laid around by a cyclone. Without regard to "position of the entrance," they lay to all points of the compass; but all occupy a horizontal position, with an occasional exception where one is seen laying with one end upon another log, and the other end resting on the ground. I can assign no reason for this position, unless it has been thoughtfully placed in this way by the apiarist to save his bees the annoyance of carrying water for the brood in rainy weather. In each of these hollow logs is a colony of bees, or else the remainder of one that has been destroyed by the moth or flown to some place more in accordance with its idea of a suitable home.

A Cuban honey-extractor and wax-extractor are very much alike, both being a piece of coarse linen. For extracting honey, the combs (that are taken from the end of the hollow log, or from under it) are placed in the linen sack and squeezed until no more honey (and dirt) can be obtained. Then the sack is placed into boiling water until the wax is as nearly all extracted as can be under such a process.

In transferring nearly 100 of the above-referred-to colonies from the logs to the Langstroth hives, I did not find one that was not affected more or less with the moth; some of which were completely destroyed by its ravages. It is not uncommon to see a colony of bees festooned outside of the log where there is a tree near the end, or anything else for them to attach their combs to; having moved out for the convenience of the moth and roaches which out-number the bees. Where a colony has been long in this condition and established business outside, the combs get weather-beaten, and have the color of a hornet's-nest.

My apiary is located at La Gloria, about three miles from the city of Cienfuegos, among the hills and fields that are now "a perfect sea of bloom;" and the bees are working from morning until night upon the Companea, and another plant which I should pronounce mother-wort. These plants grow here in great profusion, and yield large quantities of honey and pollen. The palm, cocoanut and banana also furnish some nectar now.

La Gloria, Cuba.

For the American Bee Journal.

A Case for Open-Side Sections.

H. W. FUNK.

I am in hopes that we will welcome a better surplus case for pound sections than any of those now in use. The fraternity is always on the alert for improvements, hence it surprises me that the new style of sections with side-openings do not attract more attention. I have just finished a case adapted to their use, of which I will try a number the following season. I think they will do. This case consists of a rim just as high as the section, and just long enough to admit 4 rows of sections easily; crosswise it is about ¾ of an inch wider than the 8 sections. (This size is for the 10-frame Langstroth hive.) Into this space a ⅜-inch board is dropped as large as the inside of the case; between it and the case wedges are driven down tight with a hammer. Perhaps thum-screws would be an improvement on wedges. Care must be taken to have the sections all of the same width.

Separators with little legs to stand on till the case is wedged, could be used very conveniently; it would take only three separators to put one in every alternate space. If the bee-space between the cases is desired, the rim need only be made bee-space wider. I think the sections could be wedged tight enough so that they would not sag in the centre of the case. A slotted board has been invented, cut to correspond with the openings in the bottom of the sections, to be used where no bee-space is desired below the first section-case.

I think with these open-side sections bees will be less liable to swarm, as a string of them will be more like the large frames used in extracting supers than disconnected sections with divisions between. Next fall I expect to know more about the matter. All the above is mere theory, and the true bee-keeper believes in his theory until experience or common-sense teaches him better.

Bloomington,⊙ Ills.

Local Convention Directory.

1887. *Time and place of Meeting.*

Feb. 23-24.—E. Iowa & W. Ill., at Davenport, Iowa.
J. Wadsworth, Sec., Moline, Ills.

Mar. 3, 4.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Mar. 16.—St. Joseph Inter-State, at St. Joseph, Mo.
E. T. Abbott, Sec., St. Joseph, Mo.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

First Pollen for 1887.—Z. A. Clark, Arkadelphia,♀ Ark., on Feb. 10, 1887, says:

My bees brought in the first pollen on Jan. 21, fifteen days earlier than last year. They have worked 6 days this year on elm and maple. It is 72° in the shade to-day, and the weather is balmy. Last year was a sorry honey year with us; it was too dry.

Bees Quiet.—D. Q. Roberts, Hollansburg,⊶ O., writes:

My first experience with bees was last spring. They did well through the summer, both in swarms and honey. I stored them away in my cellar in November. They seem to be very quiet in their winter quarters. I use Langstroth hives. There are many dead bees thrown out of the hives. Why is this?

[They are old bees, and, when dead, are thrown out.—Ed.]

Clover Chaff for Winter Packing.—S. J. Youngman, Cato,⊙ Mich., on Jan. 26, 1887, writes:

Those that have bees have rather abandoned cellar-wintering, and those with experience are more successful than formerly. Some have decided that they have killed their bees with kindness, having in many cases packed them too heavy and tight. I have used both oats and wheat chaff, but I have discarded both, and I am now using clover chaff, which I use quite heavy on the sides, but lighter on top of the frames, and leave it quite loose with plenty of air over the top. I find the chaff always dry; I think it is the best material to carry off dampness, and at the same time retain the heat furnished by the bees inside the hive. I have also tried forest leaves, and I find them far inferior to the chaff; if leaves are used they should be packed or pressed down but slightly, as the moisture does not pass readily up through, but will condense and drip down upon the bees. When I examined my bees the other day, considerable water and dampness was found inside the hives, while those packed with the clover chaff were perfectly free from dampness. All the colonies were alive on Jan. 20, and some took a flight in a light rain, with the temperature at 50° above zero, while the others remained quiet. All seem to be wintering well. Extracted honey is in good demand; I sold all of mine at 10 cents per pound.

Sundry Questions.—Hallett & Son, Galena,⊸ Ills., ask these questions:

1. What proportions of honey and water will make the best vinegar; and what time is necessary to make good vinegar from honey?

2. How long have bees been kept in a cellar during winter and come out in good condition?

3. Why sow Alsike clover for bee-pasturage when it blossoms the first time with white clover?

4. Will black bees gather honey from the second crop?

5. Will a swarm of bees be any more likely to settle south of the hive, for the reason that the entrance is towards the south?

6. How close may hives be put for safety and convenience?

7. What shape and how large a piece of foundation should be put into sections?

[1. See page 118. Mr. Bingham is a good authority on honey-vinegar.

2. Five months.

3. Cut it, and have it bloom later.

4. Yes.

5. There is a *little* more likelihood of it, but no certainty.

6. From 2 to 4 feet; but they touch in some apiaries.

7. Fill them.—Ed.]

My Way of Selling Honey.—A. D. Stocking, Almena,♀ Mich., writes:

On page 58, Mr. George Poindexter, after giving his experience with his honey, asks, "What should I do?" I would say, try the plan I did. At first, every time I went to town I took a small case of nice one-pound sections of honey in my hands, and showed it to all whom I met, and sold some and took what orders I could, and left some with a few good men to be sold on commission. I set the price at which it was to be sold, paid no attention to any market reports given; and I have never asked any one what they would give for honey. If they thought that my prices were high, I would say that the honey was mine, and that if they did not sell it they would lose nothing. Honey was selling for 5 to 8 cents lower than my price, but it was in a very different shape. I established my reputation for the quality of my honey, and in the style in which I put it up. My honey was always of first quality; if I had any that was inferior I sold it for what it was, or kept it at home, and I never had any trouble in selling my honey at my own price.

Sending Comb Honey by Freight.—Capt. Charles Regnier, Saarlouis, Prussia, asks:

What is the best way to pack comb honey in sections, to be sent 150 miles by railway?

[Pack it in crates which show the honey through glass, to ensure careful handling. Have it packed with the combs parallel with the rails, and if tiered up, let it be secured so it will not be thrown down by the cars' "bumping."—Ed.]

Early Brood-Rearing.—T. A. Daniel, Wewahitchka,⊸ Fla., writes as follows on Feb. 5, 1887:

We have had some fine weather for the last 3 weeks. Bees are bringing in pollen in quantities, and building up rapidly; they average from 2 to 3 frames of brood to the hive. Maples have been in bloom for some time.

Reversible Extractor.—A. J. R., of Windham,⌒ N. Y., asks:

Would it pay to obtain a reversible honey-extractor in an apiary of 200 colonies?

[It would pay, if you obtain a good one.—Ed.]

Wholesale and Retail Prices of Honey, etc.—T. M. Coleman, Glendon,⊶ Iowa, on Feb. 9, 1887, writes:

There is one thing that I have not seen mentioned in the discussion on controlling the price of honey, that I think could be remedied to some extent, and that is, the great difference in wholesale and retail prices. On page 8 a writer says that prime extracted honey is 5 to 7 cents per pound in Chicago, and 3 to 4 cents in other cities. I infer from his article that he is pleased at the prospect of honey becoming an article common on the tables of all classes. But I am told that this cheap honey from our hands goes on the tables of consumers at 12 to 15 cents per pound, and often higher. I shipped a lot of extracted honey to a grocer in a distant town, and it cost him about 10 cents; and I have prositive proof that he sold it at 20 cents a pound. There are so many men in the grocery business that they are claiming too large a profit on our labor. They wanted me to sell my honey to them at 10 cents per pound, and let them retail it at 15 cents the past season, but I would not do it. My honey was in one-pound sections, in nice cases each with a glass side, and I determined I would not go to all the troublo necessary to put it on their counters, and let them merely hand it out to their customers, and take one-third as their share. As to bee-legislation, I do not think we need much if any more than we have. My bees did well last winter in a cellar with the temperature at 34° above zero much of the time; and this winter they seem to be doing finely when it runs down to 30° above zero. My home is lonely this winter; my wife, after going with me for 35 years of life's journey, has gone on before me, to "the better land." May be I ought not to say anything about it here, but the Editor's words about his mother, last October, spoke to my heart in such a way, and called out such sympathy from bee-keepers, that I feel nearer to all of them.

Food for Shipping Bees.—Jacob Alpaugh, St. Thomas, Ont., asks:

1. What is the best food to put in with queens while being shipped, or with bees shipped by the pound? 2. How is it made?

[1. The "Good" candy. 2. Ask I. R. Good, of Nappanee, Ind.—Ed.]

My Report.—John B. Tully, Wyoming,⊙ Ills., on Feb. 11, 1887, says:

I commenced the spring of 1886 with 3 colonies of bees, and increased them to 8, by natural swarming. I obtained 900 pounds of honey in one-pound sections, besides plenty for the bees to winter on.

Patented Bee-Hives.—W. G. Hayen, Pleasant Mound,♀ Ills., says:

Please answer this question through the Bee Journal: If a person sells me a bee-hive, and some one else has a patent on it, who would be responsible?

[If you did not know that it was patented, you would be an innocent purchaser.—Ed.]

Bees Breeding Early.—John Nebel & Son, High Hill,⊸ Mo., on Feb. 14, 1887, write:

We have had some very changeable weather lately. The temperature has fallen 50° in 18 hours. On Feb. 10 it was 70°; on Feb. 11, 20°. Bees that are on the summer stands have had several good flights since Jan. 20. The winter has not been very severe on bees here, so far; but they have consumed more of their stores than usual, and as they are breeding very rapidly now (the weather being quite warm), they will need a good deal of attention to supply them with enough stores until fruit blossom. Jan. 24 being a warm day, we opened a hive, which was very strong with bees, in which we found brood in all stages, even to capped cells, occupying a space of about 6 inches square in two frames. We are inclined to think that our bees have began breeding too early, and on too large a scale for the changeable weather that we are having. Two hundred colonies wintered in the cellar are doing nicely.

Shipping Bees and Keeping Honey.—H. M. Moyer, Hill Church,⚲ Pa., asks the following:

1. Is it safe to ship full colonies of bees by express in Langstroth hives, by fastening only the top-bars of the frames? Or will they swing too much on the bottom-bars so that it will pinch the bees?

2. Will extracted honey keep as well during the summer if it was in a freezing room the winter previous—say in a room whose temperature was a good many times at zero—as it will when it was in a room which did not freeze?

[1. It is better to cut pieces 1x⅝ inches, and as long as the depth of the frames, and put one between each end-bar, wedging the last one. This is perfectly safe, unless the combs break.

2. Yes.—Ed.]

Bees at Work on the Maples.—R. J. Mathews, Riverton,⟜ Miss., on Feb. 8, 1887, writes:

My bees were wintered on the summer stands, and are doing well. They commenced bringing in pollen on Jan. 23, and are still doing so; they seem to be very strong in numbers, and I think they are working on maple and spice-wood. It is earlier than usual, but we are having very warm weather for this season of the year. My apiary is in Arkansas, west of the Mississippi river, and near its banks.

Spring Weather and Bees Flying.—G. L. Rankins, Weston,⟜ Ky., on Feb. 8, 1887, writes:

My bees had a nice flight on Jan. 13, and now on the 4th to the 8th of February we are having spring weather, and the bees are humming as if it was April. I wintered my bees on the summer stands, and lost one colony; it was a late swarm, and it froze on Jan. 1; the mercury was 8 below zero.

My Experience with Bees.—Wm. Cleary, Algona,♂ Iowa, on Jan. 21, 1887, writes:

Two years ago I obtained 2 colonies of bees, and secured a few pounds of honey from them, and increased them to 4 colonies the first year. A year ago last fall I got 16 colonies more and put the 20 in the cellar in the fall, and last spring I took out of it 19, some of which were very weak. I increased them to 33, sold 3, and doubled up some, so that I now have 23 in the cellar and 4 in a tenement house out-doors, in which they winter well. We had a very poor season for honey last year, as it was so dry. The clover did not last long, and we got very little basswood honey, and no fall honey. I had to feed sugar to some of the late swarms before putting them away for winter. I weighed and marked each hive as I put them away, so I will be able to tell how much it requires to winter a colony of bees. The cellar is about 40° Fahr., and the bees are dry and all right.

Making Wax-Sheets.—J. F. S., of Charles City,♂ Iowa, asks the following question:

In making wax-sheets for foundation, how can they be dipped to make both ends of even thickness?

[Dip twice, reversing the ends of the board.—Ed.]

Bees in Splendid Condition.—Henry Cripe, North Manchester,♂ Ind., on Feb. 11, 1887, writes:

Bees in this locality had a good flight on Feb. 9 and 10, and seem to be in splendid condition. My bees were all on the wing except 5 colonies that are buried in a clamp, and they will have to stay in where they are until the latter part of March. I have wintered some in this manner for four winters, and never lost a colony, except several that starved.

Good Weather for Bees.—John Rey, East Saginaw,⊙ Mich., on Feb. 10, 1887, says:

Bees are having a fine time, as the weather is warm and just right for bees to have a cleansing flight. They are spotting the snow some, but it is in a dry state. Every colony in my yard came out in strong force, and in a healthy condition. I notice a good many young bees and a few drones from some of the strongest colonies. I think that fully 80 per cent. of the bees will winter in northern Michigan.

Clover in Nebraska.—N. W. Afflerbaugh, Cameron,⊙ Nebr., on Feb. 8, 1887, writes:

I have 37 colonies of bees on the summer stands, packed all around except the front, and they have plenty of honey. Bees have been flying every month this winter; the weather is mild. I had a good yield of fall honey. As soon as we get clover here I think that Nebraska will produce more honey than any other State, as clover blooms in June and heart's-ease in the fall until frost. I am in favor of a bee-keepers' union to regulate the price for honey. One thing I am afraid of is, that the California honey will regulate the prices here.

Dr. Miller's Book, "A Year Among the Bees," and the Bee Journal for one year, we will club for $1.50.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
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At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. – It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches. – We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. No demand for extracted, and very little for comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 19. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.
BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4½c., and comb at 8@12c. per lb.
BEESWAX.—19@21c.
Feb. 9. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.
BEESWAX.—24 cts. per lb.
Feb. 11. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.
BEESWAX.—Firm at 23c.
Feb. 11. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.
BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C.F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.: dark 1-lbs., 9@10c.; white 2-lbs.. 11@12c. Extracted, 6c. Market dull.
BEESWAX.—25c.
Feb. 15. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.
BEESWAX.—25c.
Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candled, 3¾@4c. Trade is quiet.
Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.
BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.
BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

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The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

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There is no Mistake in insisting that—as in all other things, so in advertising—the best is the cheapest, no matter what its first cost may be.

◆

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Convention Notices.

☞ The annual meeting of the Eastern Iowa and Western Illinois Bee-Keepers' Association will be held in Moore's Hall, 110 East 3rd Street, at Davenport, Iowa, on Wednesday and Thursday, Feb. 23 and 24, 1887, commencing at 10 a.m. Bee-keepers and those interested in bee-culture are invited to be present. Those wishing to exhibit bee-fixtures or honey, will please bring the same for inspection. J. WADSWORTH, *Sec.*

☞ The St. Joseph Inter-State Bee-Keepers' Association will meet in the Lecture Room of "Unity Church," at St. Joseph, Mo., (9th between Felix & Edmond Sts.), on Wednesday, March 16, 1887, at 7 p.m. All are invited. E. T. ABBOTT, *Sec.*

☞ The Pan-Handle Bee-Keepers' Association will meet at Wheeling, W.Va., in the K. of P. Hall, 1138 Main St., on Mar. 3 and 4, 1887.
W. L. KINSEY, *Sec*

1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?"
August Beyer, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

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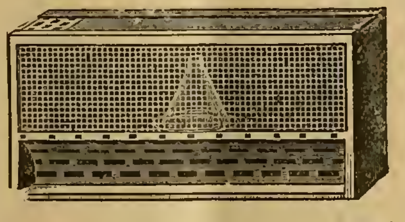

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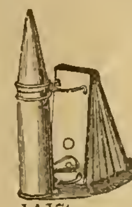

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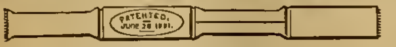
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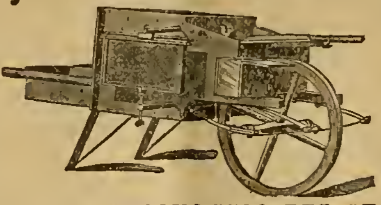

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. March 2, 1887. No. 9.

Mr. M. F. Tatman, whose letter appeared with our comments on page 83, writes an explanation and apology. He did not *intend* quite as much as his words implied, and he meant it more in jest than in earnest. His explanation is quite satisfactory.

Fayette Lee, of Cokato, Minn., has sent us a model of a tin bottom (like a pan) for crates, to prevent the leakage from daubing grocers' counters. It is a very nice thing, but we fear would be too expensive for general use.

The Costs in the case of McIntosh *vs.* Harrison thus far amount to about one thousand dollars. If the case were carried to the Supreme Court, the costs would be an additional twelve hundred dollars. So says the *Canadian Bee Journal.*

The Great Subject of the Day for the American people, is the exposed condition of our great seaports, in a dozen of which one-fourth of the wealth and resources of the whole nation is accumulated. Destruction of a great port would spread ruin to all parts of the country. Mr. Joseph Nimmo, Jr., in his article, "Our Unprotected Seacoast," gives a lesson that all should read in *Frank Leslie's Popular Monthly* for March.

Bees on Shares.—We have several inquiries as to the terms of such contracts, and in order to answer them all at once we will state the usual terms of such contracts.

It is usual for one party to furnish the bees, and the other the care and labor. The expense of new hives for swarms, comb foundation, sections and crates for comb honey, kegs or barrels for extracted honey, extractors, smokers, queens, etc., to be equally divided. At the end of the honey season the honey and increase of bees are equally divided—leaving each to take all chances of marketing as well as wintering the bees. A written contract, stating the whole agreement in full is always desirable to prevent misunderstandings.

Passed Away.—Speaking of the "death record" of the most renowned apiarists of Europe during 1886, the *Bulletin* of our friend Bertrand,of Nyon, Switzerland, says :

> Switzerland deplores, among others, the removal by death, of M. Mona ; Italy, Mr. C. Fumagalli, the author of a hive largely in use among Italians ; France, M. Jules Madare, President of the Societe de la Somme, and M. Maurice Girard, a distinguished entomologist and author of a valuable book on bees ; Scotland has lost her James Anderson, a veteran of Scotch apiculture, who, in his day, was remarkably successful with the Stewarton hive ; and, lastly, Russia has seen the passing away of Dr. A. Butlerow, Professor of Chemistry and of Medicine at the St. Petersburg University. Dr. Butlerow was the promoter of modern bee-keeping in Russia, and his works are considerable, among which is a Russian translation of Berlepsch's book. The deceased doctor was also founder of a school of apiculture.

We formed the acquaintance of Dr. Butlerow when attending the Austro-German Bee-Keepers' Convention at Prague, Bohemia, in 1879. The Czar of Russia had commissioned him to confer a "decoration" upon Dr. Dzierzon for his valuable apicultural services. In the presence of some 3,000 persons he conferred this great honor amidst much enthusiasm. At the banquet which followed, the editor of the AMERICAN BEE JOURNAL had the honor of his company, together with Herr Andreas Schmidt, (now deceased), Dr. Dzierzon, the Baroness Von Berlepsch, Herr Vogel, and some other celebrated bee-masters.

But since then a number of the prominent apiarists of the Old World have passed away, in addition to those enumerated by M. Bertrand. Among them are : Herr Andreas Schmidt, who, for nearly a quarter of a century had edited the *Bienen Zeitung* in Germany ; the Rev. Herbert R. Peel, editor of the *British Bee Journal* ; Mr. John Hunter, author of Hunter's Manual, in London, England ; Prof. Von Siebold, the faithful friend of Father Dzierzon, and others whose names we do not now recall.

Peace to their dust ! We shall all soon join "the silent majority !"

Referring to an item on page 67, about another bee-paper for Canada, Mr. Allen Pringle, in the *Canadian Bee Journal,* says :

> I sincerely trust this is a mistake, but if the project is really under serious consideration, I hope the projectors, whoever they may be, may re-consider the matter. Instead of *two or more* inferior, half-supported bee-journals in Canada, let us have one good one....Two papers cannot, in my opinion, thrive and succeed.

Mr. W. F. Clarke, in the same paper, on page 927, under date of Feb. 10, 1887, remarks thus :

> I most thoroughly endorse Mr. A. Pringle's remonstrance against the establishment of another bee-paper in this country at present. ....Certainly *no one* who has the best interests of Canadian bee-keeping at heart will advocate the expediency of a *rival* bee-paper. Our friends from across the lines have committed the error of starting too many bee-papers. They are constantly springing up like mushrooms, and soon die.

There is considerable truth in the remark about there being too many bee-papers in the United States, but *three* for Canada would eclipse any showing that could be made "across the lines."

Too many bee-papers *boom* the pursuit, weaken prices, and destroy confidence by the premature death of the *weaklings*.

None Lost !—Just imagine the surprise of our readers who happen to have seen the *Canadian Bee Journal* of Feb. 16, upon discovering, on page 931, the following paragraph :

> The "Union" in the United States claim to have lost **nine** of the suits which they have thus far defended !

In our paper of Feb. 9 we stated that the Union has lost **none** of the suits which it had deemed expedient to defend, and after placing each suit on record, by enumerating it and the decision arrived at, we added :

> The four cases enumerated in the foregoing matter are all that have been finally decided, and it is a record for every member to feel proud of—**not one case has been decided against the bees!!!**

It would be fair to presume that the Editor of our Canadian cotemporary wrote the word "none," and that the printer set it up **nine.** As a vast difference in the two statements is caused by the substitution of one letter, we hope that the Canadian editor will make the necessary correction both speedily and cheerfully. Justice demands it, for the Union has defended only *four* suits, and of these **not one has been lost!**

We Commended that Michigan legislation matter to Prof. Cook, in our last issue (page 115), and we are well persuaded that it is in good hands. Mr. George E. Hilton, President of the Michigan State Association, writes thus :

> You are right Mr. Editor. I wrote to Prof. Cook last week, and he says he will attend to it. He thinks that there will be no trouble in defeating such an unjust Bill. I have also written to the State Horticultural Society in session at Hillsdale, to pass a resolution against it. I have seen our representative, and arranged to have the matter postponed for 30 days, which he says he can and will do ; in the meantime, I think our forces will be sufficiently centered to over-balance any efforts which Mr. McCormick can make.

Here follows a letter from Prof. Cook, who accepts the *trust*, and will, as he has done so many times before, see that justice is done to the pursuit of bee-keeping. He says :

> The "Bill to wipe apiculture out of Michigan" (that is my title to it) will never pass, and will probably never be called up. Michigan aims to foster her important industries and not to throttle them. Such a Bill could not get a dozen votes in the Michigan legislature. Still, I hope every bee-keeper in Michigan will write to Hon. Mr. McCormick, Lansing, Mich., urging him to withdraw the Bill. It will serve to enlighten him and others as to the status of this business.

Catalognes for 1887.—Those on our desk are from

F. A. Snell, Milledgeville, Ills.—16 pages—Apiarian Supplies.

J. W. Powell & Son, Mankato, Minn.—16 pages—Bees, Bee-Keepers' Supplies, etc.

Smith & Smith, Kenton, O.—24 pages—Implements in Bee-Culture.

C. Weckesser, Marshallville, O.—16 pages—Bees, Queens, and Garden Seeds.

David Hill, Dundee, Ills.—8 pages—Evergreens, etc.

Ezra Baer, Dixon, Ills.—8 pages—Bees, Queens, and Apiarian Supplies.

Hughes & Tatman, North Topeka, Kans.—4 pages—Bees, Queens, Chickens, etc.

Edward Gillett, Southwick, Mass.—16 pages—Ferns, Plants, Flowers, etc.

W. W. Rawson & Co., 34 South Market St., Boston, Mass.—24 pages—Vegetable and Flower Seeds.

N. N. Betsinger, Marcellus, N. Y.—6 pages—Perforated Separators.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Honey Consumed in Rearing Brood.

Query, No. 381.—What amount of honey is represented in a brood-frame 12x12 inches, or a Langstroth sized frame? Or, in other words, what amount of stores have been consumed by the bees in providing for the larvæ until the cells are sealed?—S.

Twenty cubic inches of honey represent one pound in ordinary combs. —G. M. DOOLITTLE.

The amount of stores consumed in providing for the larvæ depends altogether upon the amount of brood. A frame 12x12x1½ would hold from 5 to 8 pounds of honey, depending upon the condition of the honey.—J. P. H. BROWN.

A Langstroth brood-frame, regular size, full of honey in the comb, weighs nearly 9 pounds. I do not think it would be possible to ascertain accurately how much stores, pollen and honey a frame full of larvæ would consume before being sealed. I might guess 1 ounce of pollen and 4 pounds of honey.—G. L. TINKER.

A Langstroth frame fully filled, and with comb ⅞ of an inch thick, as I use mine in the brood-chamber, will weigh not far from 5 pounds of honey.—J. E. POND.

In favorable weather for brood-rearing I should judge that a frame of brood was equivalent to a frame of honey. In colder weather it takes more honey.—C. W. DAYTON.

Too much depends to warrant an answer in pounds. Larval food, and much of the food of the workers during the active season, consists of pollen or bee-bread.—JAMES HEDDON.

It is hard to say. Bees in the height of the season, when confined all day by a rain, will often lose from 1 to 3 pounds, as shown by scales. Yet so many things are to be considered that even this is no criterion. Bees often use 15 or 20 pounds of honey in the spring while filling their hives with brood. Yet we do not know how much they gathered in the same time. —A. J. COOK.

It depends somewhat upon the condition of the weather. In feeding colonies in the spring that have no reserve stores, about 3 pounds of honey for the first square foot of sealed brood; 2 pounds for the second square foot, and something less for the third square foot. I have never tested the matter accurately, but after the bees get up the proper heat by high feeding at the start, it requires less food afterward to keep brood-rearing going. Feeding for brood is a pretty dear business.—G. W. DEMAREE.

No satisfactory answer can be given to the question as stated. Any one may speculate.—THE EDITOR.

Laying Worker Bees.

Query, No. 382.—How can I distinguish a laying worker-bee from other workers, or from a queen?—Kans.

A laying worker bee looks like any other worker bee.—C. C. MILLER.

The bees sometimes treat her in a manner somewhat similar to the way a queen is treated. Occasionally she may be seen laying.—W. Z. HUTCHINSON.

By the size, as compared with a queen. I know of no means of telling them from the other workers unless you catch them laying.—G. M. DOOLITTLE.

They appear exactly like the other bees, unless when depositing eggs. I have imagined other movements to betray them. They cannot be distinguished satisfactorily. — C. W. DAYTON.

They are distinguishable only by dissection. If we are right, Count Barbo, of Milan, was the first to show the condition of their ovaries by microscopic descriptions.— DADANT & SON.

You cannot unless you see them laying. They look like other workers, and so are easily distinguished from a queen.—A. J. COOK.

You cannot distinguish a laying worker from other workers; though I have observed that the underside of the abdomen of a laying-worker was fuller than that of an ordinary one. You have only positive knowledge when you catch them in the act of depositing the egg. They are distinguished from a queen in the same way you distinguish a pig from a goat.—J. P. H. BROWN.

There is no way to distinguish a laying-worker from other worker bees, unless you can detect them in the act of laying eggs. You could distinguish a laying-worker from a queen if it was possible to first identify the laying-worker. — G. W. DEMAREE.

The only way I can do this myself, is by seeing her in the act of depositing eggs, and I have never found any appreciable difference in size or form between a laying worker and any other worker-bee. It is easy enough to distinguish a laying-worker from a queen, as the queen always shows the mark of royalty, while the worker, laying or otherwise, never does.—J. E. POND.

It is not possible always to distinguish laying-workers from the other workers, though it is easy to know one (if you can get your eye on it) from a queen by the length of the latter's body, and the size. Sometimes the laying-worker can be distinguished from the other bees by the hairs being all worn off from the abdomen, so that they appear black and shiny. Where there are laying-workers there will generally be seen many such bees, but only a few of them may be developed into laying-workers.—G. L. TINKER.

You can readily distinguish any worker from a queen by the difference in size, as has been shown in engravings; but I will let some one else tell how to distinguish laying-workers from any other worker bees, unless you can catch them in the act of laying.—JAMES HEDDON.

Laying-workers are not distinguishable from other bees; if you have seen a worker lay, you can easily determine by its size that it is not the queen.—THE EDITOR.

Bees Refusing to Accept the Hive.

Query, No. 383.—I let my bees swarm naturally, often several swarms clustering together. They would not accept the hive, but crawl all over it, both inside and outside. Is it because they have no queen, or too many? I have tried doubling up the colonies, dividing the bees and putting them into several hives, and raising the hives to give them air, but all to no avail. They would finally die out. I have had single swarms act the same way.—Texas.

It is because they have no queen.— J. P. H. BROWN.

The lack of a queen causes such actions.—W. Z. HUTCHINSON.

The loss of the queen, I judge, by the bees balling her or otherwise, is the cause.—G. M. DOOLITTLE.

Such actions on the part of bees always indicates the loss of the queen.—G. L. TINKER.

I hardly know what the trouble was, unless the queen was lacking.—C. C. MILLER.

I should say that they had no queen. —H. D. CUTTING.

It is usually because the queen does not enter the hive. By practical experience in the apiary is the way to learn to overcome this class of difficulties.—JAMES HEDDON.

The fact that they "die out" suggests queenlessness. The queens were balled and killed in the cluster, or after hiving. You should find and cage a queen for them for two days. "Single swarms" might do so when honey was not very plentiful.—C. W. DAYTON.

When bees swarm, and two or more swarms cluster together, they often become demoralized by reason of the presence of more than one queen, and refuse to do any good. It pays me to remove all but one queen at the time of hiving them, if it is desirable to unite all together. Such swarms should be hived on the old stand and given one or two frames of brood, so that if the queen is killed by the mixture of strange bees, they will have the presence of brood to rear a queen. —G. W. DEMAREE.

Queenlessness, without doubt, must account for such actions. — THE EDITOR.

Distinguishing Swarms.

Query, No. 384.—I am obliged to be absent from my apiary till 3:45 p.m. each day. If, on my return, I find a swarm on a tree, what is the best way of ascertaining from what hive it came? I have tried sprinkling with flour, but with little success. Please explain fully.—F., New Jersey.

By observing the appearance of the colony. The hive that has just cast a swarm will have fewer bees than usual at the entrance; and if sections are on, they will be comparatively deserted.—J. P. H. BROWN.

If there are only a few colonies in the yard they may be examined; if there are many, the swarm may be hived, and then watch be kept to see where the stragglers finally go.—W. Z. HUTCHINSON.

Learn the condition and strength of each colony, so that you can on your return note the change, if one casts a swarm in your absence. If one has many colonies it may be impossible to tell where second-swarms have issued, unless the bee-keeper is on hand very soon after; then scattering young bees, and bees with crippled wings in front of a hive, will be the index.—G. L. TINKER.

After you have hived the swarm and taken them away from the place where they were clustered, take a bunch of the bees to a little distance and throw them in the air. In a little while you will find them ventilating at the entrance of the old hive. If floured, it is all the better. But the best way is to clip the queen's wing.—C. C. MILLER.

I have experimented considerably to overcome cases like the one here described. I have succeeded by putting some flour in a deep tin cup and dipping up some bees from the cluster, and after shaking them up, and giving them a good scare, turn them loose in the apiary. Some of them will generally go straight home and discover to the observer the hive from which the swarm issued. Once in a while the bees refuse to identify their old home in this way, and I am "swamped."—G. W. DEMAREE.

The "flour" plan is a success with me. Flour a tea-cupful after having kept them until just as the bees in your apiary cease flying, and then carry them some rods away to some warm nook, and scatter them broadcast; hurry to your apiary and you will see where they swarmed from.—JAMES HEDDON.

After you have hived the swarm you will find a few bees trying to cluster where you took the swarm from. Take a good handful of flour and throw it upon them and drive them from the place, and you will soon find them at the entrance of the hive from which they came. I do not think it ever failed me. Use plenty of flour.—H. D. CUTTING.

There is no sure way unless you can find the queen. If you remove her from the cluster, then the bees will go back to their old hive. By close attention previously, you would be able to know possibly what colony was preparing to swarm. By opening the hives you could very likely tell by the number of bees, what colony had swarmed. If you are away, as you say, you ought certainly to clip the wings of your queens. Then the bees will show you, as they will go back, and usually you will find the queen in the hive, or in a knot of bees hard by.—A. J. COOK.

Take a tea-cupful of bees from the swarm and put them in a bee-tight box, being sure not to get the queen. Hive the swarm, placing them (as soon as in the hive) where you wish them to stand. Now open the box, and at the same time throw all the bees in the air so they will take wing, when in a moment or two they will return to the parent hive and set up the call (by fanning of wings) of "home is found."—G. M. DOOLITTLE.

You can toss a few bees in the air some distance from the swarm, and ascertain which hive they return to; or you can examine the hives and see from which a swarm has come out. Either plan is uncertain, however. Why not use a queen and drone trap, or make your swarms either on the nucleus plan or by dividing? Either way would be preferable to myself, than to have swarms issuing during an unavoidable absence.—J. E. POND.

If they have no queen with them, you ought to be able to see which hive they go into. I would search the queen out of the cluster and put her into a cage, and when the bees begin to return to the hive, remove it and put a new one in its place. As soon as they begin going into it, let the queen loose amongst them. You should know which colonies are most likely to swarm. This would aid you.—C. W. DAYTON.

By using a drone and queen trap you may prevent the queen from leaving, and the bees will return to the hive. Then you can divide the colony at pleasure. The flour would, no doubt, successfully determine from which hive the bees came, if tried just before they cease to fly.—THE EDITOR.

Convention Notices.

☞ The St. Joseph Inter-State Bee-Keepers' Association will meet in the Lecture Room of "Unity Church," at St. Joseph, Mo., (9th between Felix & Edmond Sts.), on Wednesday, March 18, 1887, at 7 p.m. All are invited. E. T. ABBOTT, *Sec.*

☞ The Pan-Handle Bee-Keepers' Association will meet at Wheeling, W.Va., in the K. of P. Hall, 1138 Main St., on Mar. 3 and 4, 1887.
W. L. KINSEY, *Sec*

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest: ○↘ southeast; and ↙○ southwest of the center of the State mentioned.

For the American Bee Journal.

Restoring Good Prices for Honey.

JOSHUA BULL.

Much is being written about the low price of honey, and the consequent discouraging prospect for bee-keepers, and the blame for this state of things seems to be laid, by some writers, chiefly at the doors of the farmers and others who keep only a few colonies of bees, and who consequently have but little honey to sell, and hence it goes at any price, thus spoiling the market for others. To the careless observer this, no doubt, has much of the appearance of truth in it; for no doubt some know by painful experience that even a very small quantity of honey sold at a low price in a small town makes it very hard for the next person who may come to the same market with honey to sell, to get any more for it than his predecessor sold his for. But before we saddle all the blame upon this class of producers, let us see if the cause for this condition of things is not traceable to some other source.

It is not because those who have but little honey to dispose of are *willing* to sacrifice the little they may have for mere nothing—not at all; for generally those who have but little honey to sell feel the necessity of getting all they can for it, as much so as those who have more. But let us see how one of those farmers is trying to sell his small lot of surplus honey to some shrewd grocer.

The farmer says, "Mr. Grocer, can I sell you some nice comb honey today?"

Grocer: "How much do you want for it?"

"Twenty-cents per pound."

"Whew-o-o-o!! why honey is selling for only 10 to 12 cents in Chicago, and if you should send it there, when you have paid freight and commission, you would not have more than about 8 cents per pound left for your honey. But now, to be fair with you, I will give 9 cents cash, or if you will take your pay in groceries, I will allow 10 cents per pound for it."

"That is not enough; it would be too little pay for the time and labor that I have spent in taking care of my bees; allow me 15 cents, and you can have it."

The grocer (very independently) says: "O, no, no, I can get honey shipped from Chicago for less than that. You must accept my offer or we cannot trade."

The farmer goes on and visits a number of other grocers with like results, and at last is obliged to sell for just what they choose to give, or else not sell to them at all. The man who is more extensively engaged in the business, and has established a reputation for producing an extra-nice article of honey, may stand a little better chance; yet he is very largely at the mercy of the ruling prices in the large cities.

Who, then, is to blame for the low prices which prevail in those large markets? Is it not fair to conclude that every one who sends honey to those markets, when they are already fully supplied, is reponsible for the depression of prices, just in proportion to the amount which he sends in? Because when any market has a sufficient supply to meet all demands, it does not take a very great overplus to cause a reduction in prices; and when the prices are once down, it is not easy to get them up again, so long as an overplus is continually being forced upon the market. Therefore, if all would withhold their honey from these great centres of trade, until the supply is so reduced as to allow it to command a fair price, it seems to me that much better prices might then be maintained; not only in those places, but also in our home markets. Meanwhile, let every honey producer be vigilant in working up a home market, for there are thousands of people in this great country that hardly taste of honey from one year's end to another, who would buy quite freely if it was only placed where they could get it without extra trouble. Those who have never tried it can hardly realize how rapidly this home trade will grow and develop if we only furnish the germ, and then nourish it with a first-class article of honey, and square dealing.

Five years ago it was difficult to sell honey at all in this town, but now I can sell all the surplus I have without any effort, only to get it ready. To put up comb honey for private family use, I make nice, light crates to hold 12 sections each, after the Heddon pattern, only instead of nailing the cover on, I nail a thin moulding all around the edge of the cover in such a manner as to shut down over the top of the crate about half an inch, fitting closely to keep out flies, ants, and all other troublesome insects; then give it two coats of good light-green paint, and it is ready for use. When the crate is filled with nice comb honey, the snowy whiteness of the combs showing through the glass in the ends of the crate, appears in beautiful contrast with the color of the paint, and looks very neat indeed; so that almost any housewife is captivated at first sight with its inviting appearance, and is generally very willing to purchase a crate. These crates, if properly cared for, will last for years, and can be refilled as often as desired.

For the grocery-trade I made a show-case with a drawer underneath the glass part in which can be placed a quantity of sections for convenience in supplying customers without opening into the upper part where all should be kept in neat and tasty order. This case filled with nice honey is kept standing in a conspicuous place upon the counter in one of the leading stores in this town; so that every person who enters that store will be sure to see it: and the result is that the honey sells freely, and the demand steadily increases. The fine appearance of the honey thus exhibited has often attracted the attention of strangers who have visited this place on business from Green Bay, Milwaukee and other places, so that when about to return, they have on several occasions bought some of this honey to take home with them, saying that it was the nicest thing of the kind that they had seen. By means of this show-case I have recently received a number of orders for honey from parties of whom I had never before heard. I obtained 15 cents per pound for comb, and 10 cents for extracted honey, net, for last season's entire crop; and no freight nor commission to be deducted therefrom.

Now let every person who wants to make money,
By keeping of bees and producing of honey,
Consider a moment of what I am telling:
"Build up a home market," and do your own selling:
Don't give all the profits away in commission,
For that leaves your purse in a wretched condition.

It is foolishly wrong, yes more, 'tis a pity
To send all your honey away to the city,
When hundreds of people around you would buy it;
If you don't believe this, just start out and try it.

When selling your honey, make good weight and measure;
For that always gives to each customer pleasure.
Don't try to get gain by fraud and deceit—
Dishonesty always deserveth defeat.

An injury often provoketh resentment—
Integrity bringeth true peace and contentment.
Then be not repulsive through covetous blindness,
But treat every one with cordial kindness.
Be courteous, kind-hearted, magnetic, polite,
And I think you'll succeed in the business all right.

Seymour, Wis.

For the American Bee Journal.

Building up Nuclei into Colonies.

WM. MORSE.

Last spring I disposed of all of my bees and fixtures except two 3-frame nuclei, which were very weak. On April 1 I transferred them to a "dividing hive;" each had 3 frames partly filled with honey, and bees enough to cover one side of one frame, and no brood. As the weather was cold I put hot stones wrapped in paper on top of the frames every night and morning. On April 6 one queen commenced laying. On April 9 the other commenced laying, and when the 3 frames were well filled with brood and honey, I gave another, and so on until each had 5 frames well filled with brood and honey. That was June 8; I then took one frame with bees and queen and formed a nucleus, and put the others together. That gave me 1 good colony with 9 frames well filled with brood and honey.

I then put on 24 one-pound sections, and on June 13 I tiered up with 24 more one-pound sections, and on June 18 all the sections were about half worked down. I then put back the frames of brood and queen, divided them with a division-board between them, and gave each 3 empty frames and put on the sections; that gave me, on June 18, 2 colonies, each having 5 combs of brood and honey, 3 empty combs, and 24 one-pound sections half worked down.

They kept on in the sections as though they had not been disturbed. One gave me 105 pounds of honey in one-pound sections, and the other 88 pounds. I think I can produce one-third more honey with the same strength of bees in the spring with a "dividing hive," than any other hive that I have seen, with less labor, and can control the swarming.

Rockford, Ills.

For the American Bee Journal.

The Harrison Bee-Lawsuit.

WM. F. CLARKE.

The judges have given their decision on our Canadian bee-lawsuit, and bees are now virtually interdicted as a nuisance, within the limits of incorporated villages, towns and cities. No appeal has been taken by the defendant, and unless the Ontario Bee-Keepers' Association moves in the matter there will be none. I doubt the wisdom of incurring any further expense in the case. The higher court would almost infallibly confirm the judgment of the lower one.

If nothing further is done, there is a precedent established by which magistrates, judges, and courts will be guided in all future complaints. These will be made, we may be very sure. The old proverb, "Let sleeping dogs lie," applies. "All is quiet along the Potomac" while every canine in the region is locked in slumber, but let one awake, and "give voice," and the chorus of barks becomes universal. For my own part, I shall "git eout" of the limits of the corporation with my bees as quickly as possible. I have been anticipating this trouble for some time past, and in re-letting my farm a year ago last October, I reserved an old saw-mill and about an acre-and-a-half of a cedar grove, one of the loveliest spots imaginable for an apiary, with right of way, and a room in the farm-house, for just the emergency which has arisen. It will be a considerable inconvenience, but there are several mitigating circumstances, viz: 1. The distance is only two miles. 2. It will take my bees that much further from an apiary now only a mile off in which there was foul brood last summer. 3. Danger of over-crowding, which was beginning to loom up here in the city, will be greatly lessened. 4. My farm neighbor opposite sowed fifty acres of Alsike clover last summer, which ought to be a bonanza for my bees. It is not often that a calamity is attended with such, and so many attendant circumstances calculated to lessen it.

This precedent will quickly be quoted far and wide through the newspapers. It will have its influence on the American as well as the Canadian side of the lines. If a fight is set up, I believe it will terminate disastrously to bee-keepers. My voice is not for war. I think we may just as well accept the situation first as last. It will cause considerable trouble and loss to many bee-keepers, but in the long run I do not think that it will be disastrous to the interests of apiculture. Those who have disapproved of any but specialists going into bee-keeping, should hail the new *regime*, for it will cut out all the "small fry" at one fell stroke. It will go far to settle the "priority of location" dispute. Bees will be kept on "bee-farms" instead of on small lots. There will be less exposure to robber bees, foul brood, mixing of swarms, and other evils born of contiguity. Dr. Miller will now see that there is another phase to legal protection, viz: protection against bee-keepers, as well as protection among them.

Our friend J. B. Hall has long flattered himself that a special Act of Parliament would be necessary before municipalities could pass by-laws ordering the removal of apiaries outside corporation limits. He now finds another of life's illusions rudely dispelled. Alas!

Guelph, Ont.

For the American Bee Journal.

That Honey-Producers' Convention.

JAMES HEDDON.

I have read the different articles upon the subject, and pondered many an hour upon the feasibility of a special North American Bee-Keepers' Convention, to be held, say early next May. For years I have written about subjects relative to such a work, and hopefully dreamed of the time when something might be done directly in the interest of the honey producer. Let us hold a meeting without a sample of or a word about apiarian supplies, or how to produce more honey. It is a grand thing to know how to obtain a maximum yield at a minimum outlay of capital and labor, but as it is also a most welcome state of affairs to know where and how to exchange this crop into that medium of all exchanges—money; and further, that we have held hundreds of conventions, nearly all of which have ignored this subject, let us hold *one* three-day convention in which we will exclude discussions directly relating to production. Let this convention be devoted to the weeding out of our pursuit many fallacies which have clogged our wheels of progress.

I have had to smile at the misconception on the part of many.

Mrs. Harrison mentions the "Pope's bull against the comet," and others talk as though we were proposing to meet for the purpose of "bucking the inevitable," and uprooting all the natural channels of trade. But all we can hope to do is to somewhat straighten some of them! When we read that Smith is readily getting 18 cents per pound for his comb honey, and Jones is selling his (equally good) for 10 cents, we know something is wrong with the "channels." Our map shows us that these gentlemen are not transportation-cost of one cent per pound apart. We know that these "channels" have been fingered by some one, either producer through ignorance, or buyers through mischief, and we would like to "finger" it a little ourselves.

Mr. C. W. Dayton, on page 38, has presented arguments, many of which are contrary to my experience. He says that when we have produced more honey than will be consumed as a luxury, it must supersede other sweets. I say that whoever builds upon that foundation must be willing to sell extracted honey at 3 cents per pound, and I am not. I well remember years ago telling some of my friends that if they did not stop "gushing" and exciting everybody about the great profits of the bee-business, they would yet see extracted honey sell at less than 10 cents per pound; they laughed at that and said it would never be so low; that I was "scared," and that they were "working in the interest of honey production." Well, now it is down there, and they tell us they are delighted that consumers can obtain it at so low a price, and that the children of the poor can have more of it to eat. It seems they are working for consumers, and as they have had something to sell to bee-keepers all this time, it is strangely possible that in these arguments some of them were working for themselves.

True, honey production was once a profitable business. Its followers were well paid, and a well paid class of customers and subscribers (even though not so many of them) are better for supply-dealers and bee-papers than a large number of failing ones.

A truth can be told so many times that it becomes a falsehood; so may a falsehood be told so many times that it becomes true. Let me illustrate how these truths have affected our business: Certain apicultural writers said that honey production was a good paying business; that a man could become rich at it; they told this truth so many times that it has become false! Again, certain honey-dealers said that the price of honey was down in their city, and they told that falsehood so many times that it became a truth! If you could to-day make all the manufacturers, producers and consumers in this country believe that hard times was close upon us, they would come at once!

It has been intimated many times in this paper, that many local markets have been ruined by some bee-dabbler who had no means of knowing how much his little crop cost him, opening the market at a price below cost of production. The specialist can produce honey cheaper than any one else, and he alone can tell just what it costs, because he is not backing up this class of production by any other.

Do you not think, if we hold a convention in which we discuss the "average cost of production," until we settle on a figure, that a report of this discussion and settlement will have a tendency at least to lessen the number of cases where local markets are ruined as before mentioned? I think it will; and if that is all we shall accomplish, it would be many fold more than was ever done at any previous convention. We can shake hands and get acquainted, and talk about producing honey and wintering bees, in the lobbies, the same as at other conventions; but I have not and will not mention one-tenth part of the advantage of such meeting.

We overstock our field and produce two pounds of extracted honey to get the price of one pound of comb; as Mr. Baldridge says, we sell this two pounds to a family that consumes one pound a week, and wait two weeks instead of one before we can make another sale. Exclusive production of gilt-edged comb honey is one among dozens of the ways out of our trouble.

I have scarcely touched the subject at the head of this article, and there are some very good reasons which will be brought up at that convention that will not be presented before. Depend upon it, we shall have the most intensely interesting meeting ever held by bee-keepers; one unparalleled in its promotion of the "dollar and cent" interests of honey-producers; one whose report will be eagerly sought, and of lasting benefit to our pursuit.

Dowagiac, ♀ Mich.

For the American Bee Journal.

Necessity of Pollen for Bees.

SAMUEL CUSHMAN.

In response to Prof. Cook's article on page 742 of the Bee Journal for 1886, I would say that in my article on page 711 of the same volume, my quotations are his exact words, as any one can see by turning to "Pollen Theory," on page 25 of the same volume, except that the printer put "nitrogen" where I wrote nutrition. I ask all interested to read the Professor's essay.

I am willing to admit that I used, on page 616, the term *nitrogen* ("elementary nitrogen exists only in the one form of gas") where I should have used *nitrogenous* (but this was not in the quotation), and that mineral salts should not have been called by me organic food. I do not question the correctness of the analysis quoted by Prof. Cook, and admit that muscle is not the greater part of it nitrogen. As the definition of nitrogenous is "Pertaining to nitrogen or containing nitrogen," the real question at issue is the same.

Albuminous or nitrogenous material is found in white of eggs and milk as albumen; in cheese, caseine; in lean meat, fibrin, and in grains as gluten. The ideas given by Prof. Cook were that the excreta of bee-diarrhea is almost always—if not always—composed of pollen-grains, while bees that had no pollen in the hive showed none in their excreta, therefore by removing pollen we could prevent diarrhea. That if bees were kept in the quiescent state they needed only honey to serve their wants; that they have in their blood and tissue enough albuminous material to last all winter, and that pollen would not be needed. That in animals fat alone serves the purpose of *all food*, and for a time keeps up nutrition; that possibly all organic food may be converted into fat; that nitrogenous food (food containing nitrogen) can be transformed into fat by a peculiar vital process. That almost pure muscle is *transformed* into fat; as an example, fatty degeneration of the heart is given. That carbo-hydrates are falsely called heat-producing food! That carbo-hydrates are the best food for bees in winter quarters. That carbo-hydrates are used with other food to build up tissue. That heat is produced by vital work. That the albuminoids are absolutely essential in food to form vital tissue. That in all vital action some of this albuminous material is used up and must be restored. That active workers need pollen. That in order to get bees through the winter without diarrhea, when the temperature cannot be controlled, they should be deprived of pollen.

I hold that the nitrogen in food *cannot* be transformed into fat, and that muscular tissue or albuminous material *cannot* be *entirely* changed into fat. That stored fat (or otherwise) cannot as a food serve the purpose of albumen or nitrogenous material. That in fatty degeneration of the heart the fibrin or albuminous material is carried away and *replaced* by fat. That fat is not made into tissue, is not truly vitalized, but is merely stored in living tissue. That carbo-hydrates *are* heat-producing, and serve the purpose of *fuel* for the body, to carry on the vital forces and eventually produce heat. That this surplus fuel in animals is stored as fat to be drawn upon in time of need.

I would like to ask, how could bees have any pollen in their excreta, if there were none in the hive? Who believes that bees cannot have diarrhea that is not colored by pollen? Is cold or improper temperature harmless to bees if their pollen is removed? Will not excess of moisture in the air of a hive produce diarrhea? Can they be made so quiescent or inactive as to live until the hive is opened in the spring, without wearing out any tissue?

The Professor says that bees do not hibernate, are not quiet, but in the winter cluster are continually changing from the outside to the centre of the cluster, although this activity is very slight (page 87, 1886). We would infer then that they do need pollen, although but a very slight amount. Even if they do hibernate, or have hibernating spells (which I believe is all that is claimed by Rev. W. F. Clarke), they would need pollen between those spells when active. If without pollen and *they do* wear out nerve and muscular tissue, will not the result be an impoverished and feeble condition?

Tissue worn out must be replaced. How much of that material can the blood and body of the bee contain? They store both carbonaceous and nitrogenous food in their combs, why do they not lay in a supply of one and not the other of these elements, if but one is needed? Animals that hibernate store up in their bodies both of these elements sufficient for winter.

Bees generally breed in the spring before the hives can be opened. How about those with no pollen? If the pollen theory is sound it will live, no matter what is said against it. If it is not sound, the sooner *all* find it out and turn their attention to *real causes*, the better for our pursuit.

Pawtucket, R. I.

For the American Bee Journal.

A Bee-Hat for Protection.

WM. MUTH-RASMUSSEN.

If you would fain your nose protect
From bee-stings, don't a veil select;
For my experience with a veil
Is, that it is too light and frail.

When, just like some, a veil I used,
My nose was also oft abused;
On one occasion e'en it got
Two stings at once, which made me hot!

A veil may easily take fire,
Resulting in disaster dire,
And cause, as then perhaps you'll find,
A wail of quite a different kind.

Now, if you my advice will follow,
I'll tell you what will beat "all hollow"
The veil and such like institutions;
Then you can draw your own conclusions.

First, get a cheap hat, made of straw,
(A calico hat is even better);
Then borrow needle and thread from "ma,"
Or if she'll sew for you, why, let her.

Next, make a cylinder, to-wit,
Of wire-cloth, which your head will fit
So easy, that it won't come close
To neck or ears, nor to your nose.

First scorch the wire-cloth o'er the fire,
Then beat the paint from woven wire;
This makes it easier on the eyes,
While bright paint oft the sight defies.

Trim wire-cloth quite wide in front,
Full width of face is best, I find;
From thence decrease the width beyond
The shoulders; make it scant behind.

Join narrow ends to form the rear,
Turn in the ragged edges, both,
That they may not your fingers tear.
Now make a wide fringe out of cloth;

Sew this to cylinder, below,
That it may o'er your shoulders fall.
To rim of hat you now will sew
This whole concern; and that is all.

It shades the head, protects the eyes,
Admits the air, is cool end nice,
And if the wind a little blows,
There is no danger to your nose.

Independence, Calif.

For the American Bee Journal.

Regulating the Price of Honey.

GEO. F. ROBBINS.

When I hear a man talk about paying 20 per cent. commission, if a grocer will retail honey at 20 cents per pound, or about compelling dealers to sell and consumers to buy at your price, I do not know whether to laugh or growl. I would laugh to see it tried here. It is easy to say, but it is a far different thing to *do*.

I fancy I hear my brother, as he surveys his growing stock on some balmy, vernal day, soliloquizing thus: "Mares are worth more than horses, and steers more than heifers. It would be better for me to have my colts all mares, and my calves all males, and that is just what I'll do." Will he? It would be about as well for him to say, I will sell all my wheat at a dollar per bushel, my hogs at 6 cents per pound, etc. The consumers have something to say about that, and it is right that they should. It is no more reasonable for me to talk about getting my price for honey. I have made most heroic efforts in that direction the past fall, and I know how it goes. It is no use to talk about keeping up arbitrary prices. Whatever may be the effects of competition and combination, supply and demand do more than all other things to regulate prices. Whether it be labor at one end of the list, or produce at the other, all are subject to the same inexorable law. Labor combinations have bent their energies during the past year as never before, to get the labor markets at their disposal, so to speak, and what have they accomplished? Nothing but to demonstrate the utter futility of any such expedients.

The farmers of this country can no more set the prices for their products than they can bridge the Atlantic! Honey producers are no better off. The season of 1885 was a very poor one. I, with about 1,100 pounds of honey to sell, had almost a monopoly of the trade. I got about 16 cents per pound for it. It was the best I could do. A few consumers would buy honey at 18 or 20 cents per pound, and a few dealers would handle it at that. The majority would not touch it. They could not afford it. The year 1886, having four times as much honey and four times as many competitors, what is the sense in thinking about keeping the price at the previous year's figures! There have been many times as much honey sold last year as the year previous, because the quantity on the market has put it down within the reach of the masses. Where one person will buy honey at 20 cents per pound, six, perhaps, will buy it at 15 cents. It naturally follows that more grocers will be found to handle it. This theory I have found to hold good in practice.

To create a home market has long been my hobby, and I have done my best to make it; consequently there are few groceries in Springfield that I have not visited. At least one man would not deal in honey unless he could get it at 10 cents, and none of them would give over 12½ cents. I worked hard to get a number of grocers to sell on commission, and succeeded with just one.

Mr. W., who has sold honey for me on the above terms for several years, persistently refused to do so last year. Some time ago I tried to sell him a lot at 12 cents per pound; he wanted it at 10 cents. He finally offered me 11 cents; if he could not get it at that he would look elsewhere. I had the honey on hand, and it was take that or ship it, and stand the chances of getting less. I had been canvassing the city, and I knew the state of the market. Another grocer wanted the same amount at 10 cents, and because I would not sell it at that I have it yet. Perhaps some may say that here is where the advantage of a "pool" would come in; the grocer would be made to pay a *little* more at least.

I presume if the business was all in the hands of specialists, and grocers would handle it, and their customers purchase it at prices fixed, such a pool might be effectual. But those are the rubs. In the first place very few will purchase honey at any price. The Mr. W. before mentioned, told me that he had sold considerable honey at 12½ cents that he would not otherwise have sold at all. But he could see that it cut into the syrup trade.

Again, specialists cannot always control the markets, and all markets cannot be controlled alike. In Springfield is a prominent lawyer and a wealthy druggist who keep bees largely for pleasure. Together they produced nearly 2,000 pounds of nice comb honey which they sell at 12½ cents per pound in trade. That knocks me out, as I want cash, while an opulent lawyer or merchant can very easily consume that much in groceries.

Again, here is an old, retired farmer who potters with bees largely as a pastime, and he finds it very convenient to pay for his groceries in the same way. What do these men want with combinations? They take no interest in the honey business, properly speaking, and could not be prevailed upon to join any combination. And there are enough of such men to defeat any pool that might be formed in a flush season.

Mechanicsburg,⊙ Ills.

For the American Bee Journal.

The Hive-Entrances in Winter.

G. M. DOOLITTLE.

A correspondent wishes to know "if the entrance of the hives should be closed while the ground is covered with snow." As I have experimented largely along this line, perhaps I cannot do better than answer this question through the BEE JOURNAL.

Soon after I began keeping bees a friend recommended closing the entrances to keep the bees in the hives at times when mild weather occurred with snow on the ground, for, said he, "if you do not do this, lots of bees will be lost on the snow, especially toward and in early spring." He also said that if plenty of upward ventilation was given, the bees would get all the air they required from above, so no harm could possibly arise from the supply of air being cut off below.

I closed the entrances as advised, all going well as long as it kept cold and cloudy. One bright, sunshiny day, although quite cold in all other places except where the sun shone on the front side of the hives, I was out in the bee-yard when I heard a little clicking noise all about me. Wondering what it was, I listened and soon found that the noise came from the hives, a closer inspection revealing that it was produced by the bees gnawing at the hive-entrances, trying to get out. Several such days occurred, during which I found that all was quiet in the hives until about 1 p.m., by which time the sun would so warm the interior of the hives that the cluster would be broken and unrest maintained until about 7 p.m., when the cluster would again be formed. In this way the life of the bees was being worried out, and I thought to open the entrances, for I began to realize that I should lose my bees if something was not done.

Upon opening the entrance to one hive I soon saw that such a course would not answer, for out rushed the bees *en masse*, as though they had escaped from prison, taking wing and rising above the hive. As soon as they came above the hive the cold north air struck them, when they were soon spinning on their backs on the snow or wallowing in the same, never to rise again.

The next day I was called some distance from home, and on the way I saw a man sweeping snow up about his hives. I stopped and asked him the reason for so doing. He said he had two reasons, the first of which was that in times of extreme cold the snow greatly protected the hives; and second, that at times when the sun shone brightly (yet the air was not warm enough for bees to fly in safety) the snow kept the hives cool, so that the bees had no desire to fly. I now had learned a way to obviate my trouble, as he told me that every time the snow fell he swept it about the hives, thus having snow about them when there was any on the ground.

From this on for two or three years, after every fall of snow I piled it around the hives until they were covered up, the entrances being closed all the time. All proved satisfactory, except the work part of it, until one winter nearly all of the colonies so treated seemed to get too warm, and about Feb. 1 broke cluster and went to breeding. After I ascertained this fact I took the snow away from a few hives down as far as the lower edge of the cap or corner, which caused them to quiet down, and when spring opened these few were about all I had left.

About this time I had a number of colonies to drift under some 10 feet deep, so that I lost all track of them, and after trying once or twice to shovel down and find them, I gave it up and waited until spring. When they came out, only 3 out of 12 were alive, and of the 3 alive only 1 came through to June, and that was very weak. These 12 only represent the success I have had with bees drifted in snow whether the entrance was open or closed, although others report successful wintering under like circumstances.

Not being satisfied with anything so far attained, I next left the entrance open and swept snow up against the hive as far as the brood-chamber extended. This appeared to give better results, still I kept on trying other experiments until four years ago, at which time my hives were fixed as follows:

The entrance of each hive was open 4 inches in length, and a board as wide and as long as the front side of the brood-chamber was stood on the bottom-board out in front and away from the entrance 4 inches, and then leaned against the hive. When snow falls I only sweep it up over this board and front side of the hive, closing each end between the board and hive with snow, while the rest of the hive is left as it was. In all cases the bees are in chaff hives with a 4-inch thick cushion filled with sawdust over the frames above the quilt. In this way my bees have wintered to please me, except as dead bees sometimes accumulate on the bottom-board to such an extent as to cause the combs to mold; still the most of the old bees go out into the vacant space in front of the entrance to die, yet not all.

To obviate even this occasional trouble, I have this winter made for a part of my colonies a rim 1½ inches wide, and as large as the bottom of the hive, which is placed on the bottom, and the hive placed on this; which gives room below the combs for all the dead bees that may accumulate, besides plenty of air. The colonies thus fixed seem to be in the best of condition at this writing, while some not so fixed are getting restless on account of their not having a chance to fly since the five days of last November, and our winter being unusually severe thus far.

Now about bees flying when the snow is on the ground: I find that bees can take wing from the snow as well as from bare ground, provided it is warm enough. The degree of warmth I find necessary for such successful flight is 45° in the shade, providing it is perfectly still and the sun shining brightly. If partly cloudy or the wind blowing lightly, it must be 50° in the shade, or else we suffer loss. With a high wind and cloudy a little loss will occur with it as warm as 57° to 60°. At all times not warm enough for flight the bees remain quiet if fixed as above, providing they are not restless at a temperature of freezing and below. Colonies suffering from the so-called diarrhea are never clustered quietly.

Borodino,⊙ N. Y.

For the American Bee Journal.

Getting Extra Combs for Extracting.

JOHN REY.

In reply to the question, "How shall I proceed to get combs built at the least expense?" I will give the plan that I have been using the last three years. I always save the drone comb when I examine a hive in the apiary, or whenever I find a brood-comb that has any drone comb in it I cut it out and insert worker comb in its place. I do not allow any drone comb in the brood-chamber.

My brood-frames are the Langstroth size, in 10-frame hives; the surplus cases are only half as deep, and hold 7 brood-frames for comb honey, each brood-frame holding four one-pound sections with separator. My extracting combs I work in the same cases, as they are the same size as the frames that hold the sections. The way I get good, strong extracting combs, I lay the drone comb on a bench, and lay on one of these brood-frames, with a thin-bladed knife cut the comb on the inside of the frame, and the comb will fit in tight. It is hardly necessary to wind a string around it to keep the comb from falling out, as the frame being so shallow, the bees will soon have it fastened to the frame all around, when it forms a strong extracting comb that will last for years.

There is not the least danger of the queen laying in these combs. After they are drawn out they are 2 inches thick, and even thicker; I have had them 3 inches thick. They are nice to uncap. The uncapping knife will reach clear across the comb, it being only 4¼ inches deep. The comb is stronger, and it will bear handling better than if it were the full size Langstroth frame; but the best of all is, if you have no reversible extractor, these shallow combs can be reversed *inside* of the extractor, and 8 of them can be put in at one time. Eight of these frames will hold more honey than 4 of the brood-combs.

My experience has been that whenever a case of extracting drone-combs were on a hive they would not build drone comb below in the brood-chamber; even if I put in an empty frame and let them build comb it would always be worker comb. It is natural for them to have drone comb in the hive, and if it is kept directly over the brood-chamber, they will not build it below. Besides, what harm is it if the queen does get up there and lay in the drone comb?

I work on the tiering-up plan. The drones will hatch out in due time, the cells will be filled with honey, and that is just the way I get them started to work in the cases. When I put the first case on a hive, I take a frame from one of the colonies that has brood in the surplus case, and put it in with the case that goes on the next hive. This is what I call a "baiter" or a "decoy," and the bees will go right to work.

East Saginaw,⊙ Mich.

For the American Bee Journal.

Northeastern Michigan Convention.

The Northeastern Michigan Bee-Keepers' Association held its fifth annual meeting on Feb. 2, 1887, at Bay City, Mich. After the reports of the Secretary and Treasurer had been read and accepted, and the members had paid their dues, President Taylor read his address.

After the address the following query was asked: "Do bees, by means of their stings, add formic acid to the honey when capping it?"

Dr. L. C. Whiting—I have, for hours, watched bees at work sealing honey in an observatory hive, and never saw any indications that the bees brought their stings into use, either to add formic acid or to use them as "trowels." I look upon this as another ephemeral illusion. The formic acid in honey is probably a secretion that is added to it while the honey is being handled by the bees.

Dr. C. E. Rulison—I, too, have watched bees for hours, when they were sealing honey, and the work is all done with the mandibles.

INDUCING BEES TO WORK IN SECTIONS

Dr. Rulison—Use shallow brood-nests.

W. Z. Hutchinson—A good flow of honey will start them the quickest of anything; but with me they start much quicker when the sections are filled with empty combs.

President Taylor—With me comb foundation has given more satisfactory results than empty combs.

Dr. Whiting—I once saw 25 colonies very quickly started to work in the sections by raising the cover and the covering over the sections, thus allowing the warm air to pass up *through* the sections.

W. E. Harris—I thought reversing the brood-combs had settled this problem.

W. Z. Hutchinson—With very shallow combs but little is gained in this respect, as the combs are about as full of brood upon one edge as the other.

Dr. Rulison—The shallower the combs the less the need for inversion.

TEMPERATURE AND MOISTURE.

President Taylor—With the temperature at 40° I believe bees will winter as well, if the air is dry, as they will at a higher temperature but a *moist* atmosphere.

W. Z. Hutchinson—One of the recent queries in the AMERICAN BEE JOURNAL, asked if the presence of water in a cellar added to the moisture of the air.

Dr. Rulison—I once contended for a dry atmosphere in which to winter bees, and Prof. Cook replied that in the College bee-cellar the water usually was 6 inches deep, yet the bees wintered well.

Dr. Whiting—This all depends upon the relative temperature of the air and water. If the water is warmer than the air, there will be evaporation; if colder than the air, the moisture in the air will condense upon the water. Ice in a cellar will dry the atmosphere.

PREVENTION OF SWARMING.

Dr. Whiting—I had a neighbor that kept his bees from swarming by cutting out queen-cells and slicing off the heads of the drones before they hatched.

W. Z. Hutchinson—Mr. Simmins says that bees will not swarm so long as they have unfinished combs between the brood-nest and the entrances.

Dr. Whiting—In the days of box-hives I knew of a swarm being hived in a tall hive. The first season it built the combs about one-third the way down. The next season it swarmed before the hive was one-half full of combs.

Dr. Rulison—I have tried this method several times, but it is not always a success.

W. Z. Hutchinson—I have never tried the plan, but Mr. Heddon says that the Simmins' method of preventing swarming is a "fallacy." I am sorry to hear so much against the system, for now that "chip" on Dr. Miller's shoulder seems further from my reach than ever.

R. L. Taylor—I have never had any success in repressing swarming.

W. Z. Hutchinson—Unless it was in an out apiary I fail to see benefit in preventing swarming (*i. e.*, of *first* swarms), unless the harvest was unusually early and short. I have always secured more honey from a colony (and its increase) that swarmed than from one that did not swarm.

Honey-plants were discussed at some length, but the opinion prevailed that their cultivation was unprofitable, unless they furnished something aside from honey. Alsike clover was the favorite, and the furnishing of seed to surrounding farmers was recommended.

Quite a number of instances were mentioned to show the advantage of a space below the combs in winter.

"Old or young bees for winter" was one of the queries that came in for its share of discussion. W. E. Harris preferred to have all the bees hatched before the middle of October; W. Z. Hutchinson agreed with him. He would have them all hatched sooner than that, rather than later, and have the bees prepared for winter early. President Taylor had induced late breeding by feeding the bees sugar, yet the bees wintered well.

All agreed that it was better not to unite weak colonies early in the spring.

The following officers were elected: President, R. L. Taylor, Lapeer; Vice-President, John Rey, East Saginaw; Secretary, W. Z. Hutchinson, Rogersville; and Treasurer, Dr. L. C. Whiting, East Saginaw.

The convention adjourned to meet next December, in East Saginaw, Mich., in connection with the Michigan State Bee-Keepers' Association.

W. Z. HUTCHINSON, *Sec.*

Bee-Legislation, etc.—James Heddon, Dowagiac,♀ Mich., writes:

Dr. Miller has been studying the question of bee-legislation for years, and then was unfair enough to surprise us with its announcement. I did not know there was so much argument on his side; I thought it was all "jug-handle" proposition. I am not sure that any of us can successfully answer his last article, and I shall not try it, and give him the case for the present at least.

Errata.—There was a slip of my pen or the "typo," for I never place any kind of surplus receptacles "under" the brood-nest, and do not advocate it. See my answer to Query, No. 375.

[To change the word *on* to "no" will make the answer read correctly. —ED.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Mar. 3, 4.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Mar. 16.—St. Joseph Inter-State, at St. Joseph, Mo.
E. T. Abbott, Sec., St. Joseph, Mo.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees in the Cellar. — Christian Weckesser, Marshalville,♂ Ohio, on Feb. 16, 1887, says:

Having been very successful in wintering bees in a cellar which opened into a basement kitchen, and on account of a rather neglected condition of the apiary, I placed about one-half of my bees into another vacant cellar the past fall, and expected my usual success. I had no apprehensions in regard to their condition, until the temperature went down, and the nuclei became affected with diarrhea. I at once took them all out, letting them fly for a day or two, and packed a part of them and returned the rest to a better cellar, where, I believe, they are now faring as well as usual.

Proper Spacing of Brood-Combs.—Louis F. Burgess, North Walton,○↘ N. Y., asks:

1. What is the exact depth of the cell in which the pupa-bee is confined for development. 2. What is the exact space between combs that bees will leave on sealing cells, either brood or store? I am after the proper spacing of brood combs from centre to centre, concerning which differing statements have appeared.

[An average of thirteen-thirty-seconds of an inch; the space bees leave between their combs, varies somewhat where they build with no guide except their instincts. This is true of both store and brood combs. As it is best to adopt a system that keeps the combs the same distance apart all the year around, no doubt that distance is 1⅜ inches from centre to centre.—James Heddon.]

Bees are Uneasy.—Mr. E. D. Lerch, Leeds Centre,⊙ Wis., writes:

My bees are uneasy, crowding around the entrance, and many come out in the cellar. They have quilts over the hives, and the temperature is from 38° to 42°. There is a good fire in the room above, and the cellar door leading to it is open at night. What is the matter with them?

[The description given is insufficient to determine the cause of the trouble.—Ed.]

Feeding and Packing Bees.—A Subscriber desires the following questions answered:

1. When the fall flowers are scarce, so that the bees cannot gather enough honey for winter, and through some unavoidable circumstances they cannot be fed enough before putting them into the cellar, can they be fed at intervals while in the cellar, as a general thing, without injurious results?

2. It is recommended at all times when forest leaves are used, to use either sugar or maple leaves, or beech leaves, to pack bees with for winter. Will not any other kind of leaves do as well to pack bees with as the above-mentioned leaves? Will not any kind of leaves, even fruit-tree leaves, absorb the moisture as well as the maple leaves?

[There is no doubt but that under certain circumstances, with all conditions right, bees may be fed pure cane sugar syrup every day, in a cellar. But why allow such a starved condition to prevail so late in the season? I should use any kind of leaves that were the handiest.—James Heddon.]

Bees Wintering Well.—Thomas C. Stanley, Boyleston,♀ Ills., on Feb. 18, 1887, says:

In the fall of 1885 I put into winter quarters 600 colonies, and in the spring of 1886 I had 200 poor colonies left. The past season I increased them to 400, in one way and another, and obtained a surplus of about 3,000 pounds of comb honey. So far this winter I have not lost 5 per cent., and I hope that we have seen the worst here, and that we may now have a successful season or two.

Making Honey-Jumbles. — J. W. Park asks the following question:

How are honey-jumbles made? I have been told that they will get soft in damp weather, and spoil. Is this true? What are they worth? What will the outfit cost to make 10 pounds of honey-jumbles per day?

[Will any one who can, please answer the above questions?—Ed.]

Zinc Queen-Excluders.—Jos. Beath, Corning,♀ Iowa, says:

I work my apiary for extracted honey, and use a frame 12x12 inches, 9 frames to the hive; the top story for surplus is the same size. My queens use, on an average, about ⅕ of the upper story for brood in the honey season which continues during white clover, and with intermissions until the fall flowers are gone. About what per cent. of surplus would I be likely to gain by using zinc queen-excluders?

[While the zinc queen-excluders may be very convenient, they would not affect the quantity of surplus honey obtained.—Ed.]

Bees Storing Rye-Meal, etc.—S. H. Rickard, West Bridgewater,←○ Pa., on Feb., 19, 1887, writes:

My bees had a good flight yesterday. I have 10 colonies in the upper part of my stable, fixed so that they can fly out and in at will. They carried in quite a lot of rye-meal. I examined them and they had plenty of stores and quite a lot of brood in all stages; some of them had part of three frames filled with brood. The bees out-doors took no meal, but perhaps they are not breeding like those in the stable. I notice that some are agitating bee-legislation. I think that it would be a detriment to nine-tenths of the bee-keepers. Why not "let well enough alone," and not make bad worse?

Sundry Questions.—Jno. E. Heard, Pikeville,○→ Tenn., asks the following:

1. What quantity of bees in the spring is an average good colony?

2. What is the average fair wages for one to take charge of 150 colonies, spring count, and then produce from 200 to 250 queens for sale?

3. Can old people get spectacles to wear naturally, that will magnify two or three times larger when looking over bee-frames?

[1. That depends upon how early in the spring. Say from ten to thirty thousand.

2. A practical apiarist should command between 50 and 100 per cent. more than the wages given to common laborers.

3. You can get spectacles that will aid you greatly in looking over combs for queens.—James Heddon.]

Bees Packed in Chaff.—J. O. Munson, Peruville,⊙ N. Y., on Feb. 3, 1887, says:

I put 70 colonies into winter quarters, and they had a good flight about the middle of January; they appeared all right. I winter my bees in chaff hives. I expect a good crop of honey and not a little money next season.

My Advertisement has caused a real rush, so that I have made up my mind that the American Bee Journal is an excellent advertising medium, considering the small size of my advertisement. It far exceeds my expectations.—C. W. Dayton, Bradford, Iowa.

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. Not much call for extracted, and very little for comb.

BEESWAX.—25c. R. A. BURNETT,
Feb. 21. 181 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4½c., and comb at 8@12c. per lb.

BEESWAX.—19@21c.
Feb. 9. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Feb. 11. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.
Feb. 11. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.: dark 1-lbs., 9@10c.: white 2-lbs., 11@12c. Extracted, 6c. Market dull.

BEESWAX.—25c.
Feb. 15. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.
Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candled, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@8c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

ADVERTISEMENTS.

BEE-KEEPERS' Guids, Memoranda & Catalogue for 1887 **Free.** Reduced Prices.—Jos. Nysewander, DesMoines, Iowa.
5D6t

WANTED.—Three live men to work in an Apiary and Nursery.
7Atf. S. I. FREEBORN, Ithaca, Wis.

PRACTICAL Bee-keeper wanted for four months. Correspondence solicited.
7A3t. P. BALDWIN, Independence, Mo.

UNTIL March 20, I will offer 4-piece, 1-lb., dovetailed SECTIONS, smoothed on one side, for $3.00 per 1,000. Sample free. With each order I give, free, a Section-box Former. Address, **M. A. LOHR,**
9A1t VERMONTVILLE, Eaton Co., MICH.

BROOD-FRAMES of any size, prepared to nail, 90 cts. per 100; $4.00 per 500. Send for description, to **C. W. DAYTON,**
BRADFORD, IOWA. 9Dtf

BLUEBERRY Plants & Vick's Strawberry Plants, 1 Cent each in any quantity, postpaid.—MRS. ETTIE WORKS, Otter Creek, Wis.
9A1t

LOOK HERE!—We make the only Buckeye V-Groove One-Piece SECTIONS in America, to order—any size. Also, the Scientific Bee-Hive, and all other Supplies used by bee-keepers. For Price List, address **J. B. MURRAY,** ADA, O.
2C6t

SAVE MONEY, BY sending your address on a postal card for my NEW Circular of Bee-Keepers' Supplies, as good as ever but **very much cheaper.**— ☞ Write **now,** or you may forget it, to **A. J. KING,** 51 Barclay St., New York, N.Y.
9A1t

WANTED.—To confer with a competent person—male or female—to attend to the Apiary. When not attending to Bees, will give constant employment the year round. Suburban city limits of New Orleans.
Address, POSTMASTER,
9A1t Lee, Orleans Parish, La.

100 **COLONIES of Italian BEES** for Sale. DANIEL WHITMER,
9A9t South Bend, Ind.

APIARY for SALE.

90 COLONIES of Italian and Hybrid Bees in Langstroth wired frames, at $5.00 each. Also GIVEN PRESS. White clover and basswood range, and no other bees near. Reason for selling—I have finished my law studies and am going West.
9A1t GEO. H. SHIBLEY, Richmond, Ill.

COMB FOUNDATION.

DUNHAM Brood Foundation, 40c per lb; Extra-Thin Vandervort Foundation, 45c. per lb. **WAX** made into foundation for 10 and 20c. per lb. **Ten** per cent. discount on all orders received before the 15th of April. **Samples free.** F. W. HOLMES,
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Sections, Bee Hives, Honey Boxes, Frames, &c

Largest Factory in the World!

Best of Goods at Lowest Prices. Write for Free Illustrated Catalogue.

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37Atf WATERTOWN, WIS.

1887.
GREGORY'S
SEED
CATALOGUE.
1887.

What Mr. Beyer says: "Please accept my best thanks for the splendid seeds received from your firm It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?" AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

1D6t 12A6t

200 COLONIES
OF
Choice ITALIAN and ALBINO BEES
FOR SALE AT
GREATLY REDUCED PRICES
Also a full line of
Bee Keepers' Supplies

COMB FOUNDATION from **Choice**, Select, Yellow BEESWAX a **Specialty**, at very low rates, both wholesale and retail. Do not fail to send for my 27th Annual **Catalogue** before purchasing.

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Coleraine, Mass.
5Dtf Mention this paper when writing.

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Supplies
WHOLESALE & RETAIL.
E.T.Lewis
TOLEDO
OHIO.

All orders filled the day they are received, except for bees and queens. 1D6t

Bee-Keepers' Supplies,
OF ALL KINDS,
ALWAYS ON HAND.

A GREAT REDUCTION IN PRICE. Send for Price List. Cash paid for Beeswax. **A. F. STAUFFER & CO.,**
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CLOVER SEEDS.

We are now selling Alsike Clover Seed at the following prices: $8.00 per bushel, $2.25 per peck, and 25 cents per pound. Also, Melilot or Sweet Clover Seed: $6.00 per bushel, $1.75 per peck, and 20 cents per pound, by express or freight. All orders promptly filled upon arrival.

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923 & 925 West Madison Street, CHICAGO, ILL.

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Satisfaction Guaranteed
DESIGNERS AND
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CORNER OF
CLARK & MONROE STS.
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CHICAGO.
DEALERS IN
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100 COLONIES of BEES
For sale cheap. Reason, too many.
H. NEUHAUS,
7A8t. Burlington, Racine Co., Wis.

1887. BEES. 1887.
Colonies, Nuclei and Queens
FOR SALE.
☞ Send for Price List to
5C3t **S. D. McLEAN, Columbia, Tenn.**

CAN YOU RESIST THIS?

THE BEAUTIFUL, instructive and amusing **CHROMO CARD**, designed especially for Bee-Keepers. It has a decided happy effect wherever shown. This CARD will not be thrown away. When the articles represented upon it are explained, the story will be repeated many times, educating people and extending your reputation. **Bees, Flowers, Children and Implements elegantly printed in eight colors.**

Sample package, **10 cts.**—One sample and Price List of some old things, some new things, and all to profitably aid bee-keepers.

Address, **J. H. MARTIN,**
4C1y HARTFORD, N. Y.

HEAD-QUARTERS IN THE SOUTH
FACTORY OF
BEE HIVES, &C.
Early Nuclei & Italian Queens.
☞ Ninth annual Catalogue now ready.
5Ctf **PAUL L. VIALLON**, Bayou Goula, La.

1887. ITALIAN QUEENS. 1887.

6 WARRANTED QUEENS FOR $5. If you want Nice, Bright Queens, the progeny of which are good workers, and could be seen working on Red Clover at any time within the last two years, send for my Circular. **J. T. WILSON,**
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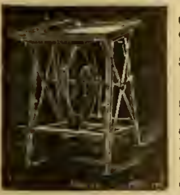
BARNES' FOOT-POWER MACHINERY.



Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

10 per cent. Reduction

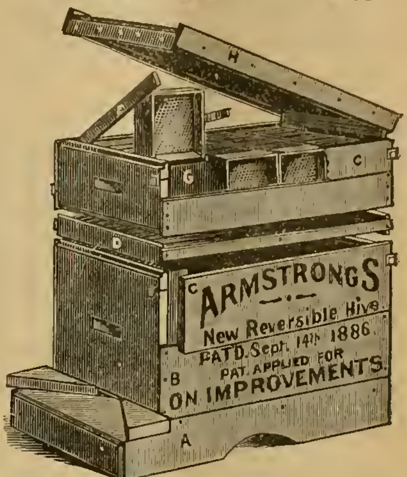
Send for Crowley's Price List before purchasing anything, from the hives to the occupants. Satisfaction guaranteed, the principle of business.

Breeder of High-Class Poultry,
F. J. CROWLEY,
48Ctf BATAVIA, N. Y.

Queens. 1887. BEES. Queens.

MY ITALIAN BEES AND QUEENS cannot be excelled in **BEAUTY** and **WORKING QUALITIES.** ☞ I make a specialty of **Rearing FINE BEES and QUEENS. Prices Reduced for 1887.** Be sure to send for my NEW Catalogue before buying. Address Frank A. Eaton, Bluffton, O.
5D3t

ARMSTRONG'S



New Reversible Hive.

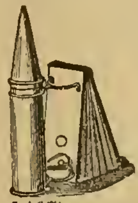
The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says :—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.



Bee-Keepers' Supplies
of all kinds kept in stock, at low rates.
THE QUINBY SMOKER
a specialty.
Send for Illustrated Price-List
W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly*, to

A. I. ROOT, Medina, Ohio.

EVERGREENS

25 varieties; FOREST TREES, 30 varieties, all sizes. Prices from 50 cents per 1000 up. 50 varieties of TREE SEEDS. Lowest Prices, Largest Stock and Greatest Variety in America. Large Trees for Street and Park Planting in great variety, by the carload. Wholesale Lists free. **GEO. PINNEY, Evergreen, Door Co., Wis.**
7D2t.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER.

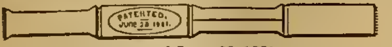
The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

Vandervort Comb Fdn. Mills,
Send for Samples & Reduced Price-List.
Atf **J. VANDERVORT, Laceyville, Pa.**

THE "BOSS" ONE-PIECE

SECTIONS.



Patented June 28, 1881.

WHILE attending the North American Bee-Keepers' Convention at Indianapolis, we learned there was a rumor afloat that the Patent on the ONE-PIECE SECTION had been set aside—circulated by unprincipled parties, to mislead bee-keepers. We would say in regard to this, that such is not the case. It is now before the U. S. Supreme Court, at Washington, and will probably be decided before a great while, when we will notify all through the Bee Journal. Until then pay no attention to rumors.

Before ordering write us for prices. We will furnish you Sections as cheap as the cheapest. Let us hear from you before you order. Address,

J. FORNCROOK & CO.,
1Atf Watertown, Wis., Nov. 1, 1886.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

GIVEN AWAY!

THE AMERICAN APICULTURIST

A 32-page magazine, published monthly, by
Henry Alley, Wenham, Mass.

Terms, $1.00 per annum. To each *new subscriber* we will send FREE, by mail, one of our latest improved "Drone and Queen Traps," the regular price of which is 65 cents. Send for sample copy. Make Postal Notes and P. O. Money Orders payable at the Salem, Mass., P. O., or enclose the $1.00 at our risk.
1Atf

OLD TIME PRICES!

UNTIL further notice I will accept orders for FOUNDATION as follows—to be shipped in April:

Dunham Brood, per lb.................... 35c.
Vandervort Thin, per lb.................... 45c.

All fresh made. Also the best FOUNDATION FASTENER in the market.

WAX worked—Dunham 8 cts. and Vandervort 15 cts. per lb. No Circulars. Seven years experience in the business. J. V. CALDWELL,
6Atf CAMBRIDGE, Henry Co., ILLS.

HOW TO RAISE COMB HONEY.

Price 5 cents. You need this pamphlet, and my free bee and supply circular. 7Atf.
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

FOR SALE.—100 Full Colonies of Italian and Hybrid BEES, in 2-story Standard Langstroth Hives, at $10 per Colony. Four-fifths of the Combs are drawn out from Foundation in wired frames; all Queens reared under the swarming impulse, except a few superseded in full colonies. With the largest order (not less than 10) I will give an Excelsior Honey-Extractor; with 2nd largest (not less than 5), an Excel. Wax-Extractor and Uncapping-Knife—provided I sell my Bees. Bees shipped as ordered, and in the order they are in bee-yard. Remit by P. O. Money Order, or Draft on New Orleans. Correspondence & offers solicited.

Address, W. T. MADDOX, Alexandria, La.
6Atf

BEESWAX.

We pay **20c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

CHEAP ENOUGH

JUST THINK OF IT!

A Complete 2-Story Langstroth Hive in the Flat, for 80 cents.

WE have a large stock of the above that sold heretofore for $1.25 each. In order to reduce the stock we will sell them for 80 cts. per hive. They take the Langstroth frame, 9⅛x17⅝ inches, and are made of pine.

Remember, we are offering great inducements to Dealers and Large Consumers, on our **One-Piece SECTIONS.** Price-List of Supplies free.

SMITH & SMITH, KENTON, OHIO.
9Ctf

FIRST IN THE FIELD!

THE INVERTIBLE HIVE!

INVERTIBLE FRAMES,

Invertible Surplus Honey Cases, Entrance Feeders, Top and Bottom Feeders, Hive-Lifting Device, Honey Extractors, Wax Extractors, Comb Foundation, etc.

☞ My new Illustrated Catalogue is now ready, and will be mailed to all who may apply for it. Address,

J. M. SHUCK, Des Moines, Iowa.
10A1y

MANUFACTORY

FOR HIVES, SECTIONS, &c.

I AM now prepared to supply dealers and others with

Hives, Sections, Shipping-Crates, Supers, etc.,

of all kinds. I make a specialty of LANGSTROTH AND MODEST HIVES. Correspondence with supply dealers solicited. My Sections are all made from Poplar. Address,

GEORGE TAYLOR,
11Atf DUNDEE, Kane Co., ILLS.

WEAK MEN MADE STRONG

All men seeking Health, Strength and Energy should avoid drugging the stomach and send for **Prof. MARSTON'S TREATISE,** which is published especially in the interests of those who are **Weak, Nervous** and **Debilitated.** If you have been drugged and humbugged send at once for this **FREE BOOK,** Replete with information of value to young and old men.

THE MARSTON CO. 19 Park Place, New York.
46A17t

SMITH'S One-Piece Section Factory.

SPECIAL PRICES to DEALERS and Large Consumers. Price-List free to all.
9Ctf **SMITH & SMITH,** Kenton, Ohio.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

PRIZES!

ARE offered by the Magazine, to the Subscribers who obtain the largest amount of Comb Honey during 1887. Write for particulars. **THE BEE-KEEPERS' MAGAZINE, 25 cents per Year.**
1Atf **BARRYTOWN, N. Y.**
(Mention this JOURNAL.)

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.

NON-SWARMING BEE-HIVES.

Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Send 2 cents for Circulars.

VICTOR W. CLOUGH, GENESEO, ILLS.
51A12t

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. March 9, 1887. No. 10.

The Minnesota Valley Bee-Keepers' Association was formed on Feb. 25, with about 20 members, who are enthusiastic bee keepers.

◆

The February Number of the Bee-Keepers' *Advance* is a great improvement over the initial number. The type is smaller; more taste is displayed in getting it up, and the printing is more creditable. There is still much room for improvement.

◆

Prof. G. G. Groff, of Lewisburg, Pa., is engaged to deliver a course of lectures on apiculture, open to all students, at the Bricknell University in that city, next May and June. This we glean from the annual catalogue of the University, which is on our desk.

◆

A Section Case, to hold 30 one-pound sections, is received from J. W. Powell & Son, of Mankato, Minn. The sections are protected from the bees on all sides, keeping them clean and marketable, by a honey-board with slots to correspond with the openings to the sections. We have before received several with such protections at the bottom of the case, but none with it at the top also, allowing them to be tiered up and still kept from contact with the bees. It is placed in our Museum for the inspection of visitors.

◆

Eastern Oregon may not be very noted for bee-keeping, but a farmer there discovered six pounds of honey in a pumpkin, as will be seen by the following item from an Oregon paper:

> In the lower Rock Creek country Mr. Keene has 6 colonies of bees, and he says they did fairly well last year. He raised some large pumpkins in his corn-patch, and some of them got so ripe that they bursted open. He noticed some of his bees making regular trips to one of the pumpkins, and going in and out of a crack in it. He cut the pumpkin open and there found 6 pounds of honey. He says that before going to Oregon he had read much about the advantages of the State, but none of it ever said that he could raise pumpkins and honey on the same vine!

From England we have the following letter from our friend William Carr, Esq., who, during our last visit to England in 1879, was our constant companion. He has been a reader of the AMERICAN BEE JOURNAL for many years, and a faithful friend to Americans. He writes:

> MY DEAR MR. NEWMAN:—I wish you could have come over to our Colonial Exhibition last autumn; and seen the rapid strides we had made in bee-keeping since you favored us with your company in 1879.
>
> We made the most we could of your Canadian neighbors during the three months they were with us. They represented the "Ontario Bee-Keepers' Association," and have returned to Canada with $4,935 which they received for the honey they brought, after deducting the expenses.
>
> They went to see almost everything of interest in all parts of this country, and everything was thrown open to them, and highly delighted were they with their reception. You would see an account in the bee journals of some of the entertainments we gave them, and how they said they were pleased.
>
> If you could only have come, you would have been not only a *New-man*, but a very great man amongst us, as there is nobody we should have rejoiced to honor more than your *kind* and *genial* self. I often show your photograph to my numerous bee-friends. Wishing you every happiness you can desire, I am Yours very truly,
> WILLIAM CARR.
> Newton Heath, England, Feb. 14, 1887.

We should have been delighted to have accompanied our Canadian friends; but when we make another visit we may bring a ship-load of honey from the United States, to "sweeten" the trip and "create" a British market for our honey! The 180 tons of American comb honey which was on exhibition and sale when last we visited London, soon vanished, and was as successful, we imagine, financially, as the Canadian shipment of last autumn.

We thank our English friends for the many kindnesses shown to our Canadian brethren—for "we are all Americans, you know!" Give us a chance to reciprocate, by making a visit to America—and we will try to repay the debt with interest.

◆

At the Nebraska Convention Mr. Henry (as was reported on page 119) had burned his bees that were thought to have foul brood. By an oversight, the vote of thanks which followed this announcement, was omitted. This course, the vote stated, "saved the cost of inspection, and danger of the disease spreading." In the third paragraph the word "not" was omitted. It should have read thus:

> Mr. Muir said he had *not* found it to pay to ship honey to city markets to be sold on commission.

A letter from Mr. Shier, of Sanilac county, Mich., quite agrees with Mr. Muir. He says he sent 1,200 pounds of nice comb honey to a commission merchant, who was found to be offering it at 8 cents per pound, but could not make a sale.

◆

The Annual Review, by Geo. W. Meade & Co., of San Francisco, Calif., is received. It gives statistics of the crop for last year of dried fruit, raisins, prunes, almonds, walnuts, peanuts and honey. They say that the crop of honey has all been sold, and that the outlook for the future is bright!

Michigan Apiarists Aroused!—The Bill introduced into the Michigan legislature by Mr. McCormick, of Allegan, has thoroughly aroused the apiarists of that State. Mr. Julius Tomlinson, of Allegan, has a letter published in the Detroit *Evening News*, from which we copy as follows:

> This Bill, if it should become a law and be enforced, would practically destroy the important industry of bee-keeping in this State. I venture the assertion that there is not one apiary in one hundred in this State, located 25 rods or more from the public highway. In the nature of the business, it cannot be so located. Apiaries must be near the homes of their owners, and they are so, invariably. If I had to go 25 rods to attend to my bees in swarming time, and care for them in other ways, I would be obliged to give up bee-keeping, and so would every other bee-keeper in the State.
>
> I cannot understand the motive for this legislation. Laws should only be enacted on the demand of a general public sentiment. If there has been any demand for this law I have not heard of it. There can be but two valid reasons for this proposed law. One is the protection of the public who use the highway, and the other the protection of homes. In both of the respects it fails. Five colonies of bees near the highway may be as damaging as 50, and I apprehend that should one attack the Hon. Mr. McCormick (as well they might in retaliation for such legislation), he would speedily receive such damage as would convince him that he has made a serious mistake in his little Bill. This Bill would fail equally to protect homes. Bees enter dwellings only to obtain some unprotected sweets which they covet. They roam everywhere, from three to five miles from their hives; 25 rods is no protection at all. Three miles distance at least would be needed.
>
> I trust that the manifest injustice of this Bill will convince the legislature that its enactment would be a grievous mistake.

◆

Catalogues for 1887.—Those on our desk are from

Geo. E. Hilton, Fremont, Mich.—4 pages—Apiarian Supplies.

F. A. Salisbury, Syracuse, N. Y.—24 pages—Apiarian Supplies.

Samuel Cushman, Pawtucket, R. I.—4 pages—Honey.

Wm. W. Cary, Coleraine, Mass.—28 pages—Bees and Apiarian Supplies.

M. S. Roop, successor to A. B. Howe, Council Bluffs, Iowa—20 pages—Bee-Hives and Supplies.

John S. Collins, Moorestown, N. J.—18 pages—Small Fruit Plants and Trees.

J. A. Everitt & Co., Indianapolis, Ind.—48 pages—Vegetable Seeds.

C. W. Costellow, Waterboro, Maine—12 pages—Apiarian Supplies.

M. J. Dickason, Hiawatha, Kans.—16 pages—Bee-Keepers' Supplies.

Lewis Roesch, Fredonia, N. Y.—12 pages—Grape Vines, Small Fruit Plants, etc.

M. H. Hunt, Bell Branch, Mich.—12 pages—Bees, Queens, and Bee-Keepers' Supplies.

Thomas G. Newman & Son, Chicago, Ills.—36 pages—Bee-Keepers' Supplies.

F. D. Wellcome, Mechanic Falls, Maine—16 pages—Small Fruit and Bee-Keepers' Supplies.

◆

The First Number of "The Canadian Honey Producer," to be published by E. L. Goold & Co., Brantford, Ont., is on our desk. It contains 24 pages—about one-half of them being very creditably filled with matter of interest to honey-producers; the other pages are devoted to advertising. It has a healthy appearance, and we wish it prosperity. It is edited by R. F. Holtermann, who is known to our readers as a former correspondent to the AMERICAN BEE JOURNAL.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Producing Extracted Honey.

Query, No. 385.—1. Can I get as much extracted honey with a single story hive, as by the tiering-up method, using the Langstroth frame, the bees being Italians and hybrids? 2. How many frames should such a hive hold to work to the best advantage?—Kinney Co., Tex.

Yes, by making the single story so that it will hold 30 or more frames.—G. M. DOOLITTLE.

1. I think you would get more honey by tiering up. 2. I prefer 9 frames to each story.—H. D. CUTTING.

1. Probably you can, if the hive is large enough. 2. Perhaps not less than 15, and more might be better.—C. C. MILLER.

I presume you can, but it is not so convenient as the latter method. With a "long idea" hive I think that I should wish for from 16 to 20 Langstroth combs.—W. Z. HUTCHINSON.

1. While I think you can get fully as much honey from a single-story hive, I prefer to tier up. 2. Eight or 9 frames in double story—12 to 16 in one story for extracted honey.—J. P. H. BROWN.

1. With proper management I think as much extracted honey could be obtained in a single-story hive as in any other. 2. Twenty.—G. L. TINKER.

1. If there is any difference I think it is in favor of the tiering-up method. 2. Mine vary according to the size of the colony, from 20 to 50 frames.—C. W. DAYTON.

No, unless like Mr. Poppleton, you use a 25-frame hive. We prefer the tiering plan with half stories.—DADANT & SON.

I can get the best results by the tiering-up plan. But I have done very well with a hive holding 16 or 18 frames, and extracting as often as the combs are filled. I prefer the tiering plan.—G. W. DEMAREE.

1. Yes; but such hives are not as convenient, do not look as well, and are discarded by us after many years' use. 2. There ought certainly to be 20 frames.—A. J. COOK.

1. I do not think you can, at least I have never been able to do so. 2. About 8 frames in the brood-chamber, and from 8 to 10 in the upper story, depending upon the honey-flow will, I think, give the best results. I use 10 in each story myself, but I think I could perhaps get more honey by the use of only 8 frames below.—J. E. POND.

1. Yes, but not with as little labor and little exposure to robber bees when they are about. 2. Twenty-four to 30 frames. The tiering system has always eclipsed the "long idea" one-story plan, and I have tried both extensively.—JAMES HEDDON.

1. You may; but to "tier up" is preferable. 2. Twenty.—THE EDITOR.

Prevention of Swarming.

Query, No. 386.—Why cannot swarming be prevented by keeping the brood-nest large enough during the entire season to accommodate the capacity of a queen, according to the following management: the brood-nest to be inverted at the beginning of apple bloom, put on the top storage-room, and so continue to keep plenty of surplus storage during the swarming season? I have succeeded best according to the above plan, in following described hive with 8 frames: Outside measurement 18½x25 inches; brood-frames, 24x11 inches, closed ends 1¼ inches, top-bars ⅞ of an inch; also side storage for about 30 pounds. The bees worked through openings on the end and side. I used the tiering-up system, and obtained 200 pounds of comb honey from one colony so treated, last year, which was double the amount of any other one of 17 colonies which gave one swarm, and whose hive was not tiered up or inverted. By referring to the record of this colony I find that it is 3 years old, and has never swarmed. On April 13, 1886, I inverted the brood-nest and put on a case of 44 one-pound sections, and the bees commenced to work at once in them, being a strong colony.—A. L., Ills.

"One swallow does not make a summer." We do not believe in reversing, but believe in a large brood-nest.—DADANT & SON.

Very large brood-chambers do not always prevent swarming; but these in connection with inverting, tiering up, etc., go far toward its prevention.—J. P. H. BROWN.

I have had no experience in preventing swarming, aside from after-swarming, unless it be to give plenty of surplus room, shade and ventilation.—W. Z. HUTCHINSON.

Circumstances and locality make a great difference, in may cases. If you succeed so well, keep on with your system, and you will soon find out whether it is the system or the bees.—H. D. CUTTING.

If your plan works well for a term of years, then you can say you are master of the situation. Remember that "one swallow does not make a summer." Nearly double the amount of comb honey you report has been secured from a colony worked on the swarming plan, in a single season.—G. M. DOOLITTLE.

You are just the one to answer the question by actual trial. Try half your colonies this way in 1887, and report your success. A single colony does not prove much, as there is great variation in colonies.—C. C. MILLER.

I am aware that very large hives have a tendency to keep back swarming, but when bees get the swarming fever badly, they will swarm no matter what sort of hive you use. The presence of very old queens in swarming time has more to do with the desire to swarm than does the size of the hive, or perhaps any other cause. I have no faith in inverting hives for any purpose.—G. W. DEMAREE.

Such management ought to prevent swarming, but why not use regular sized fixtures and extend the capacities (for brood and honey) upward in one or more stories. I have used as high as 6 stories, or 60 frames, and obtained 580 pounds of honey from the colony, so managed.—C. W. DAYTON.

If it works, all right. Some colonies are less given to swarming than are others. Room alone will not always preclude swarming fever. Mr. Simmins says that room in front will. Possibly room and inversion combined may solve the matter. Here is a fine field for good experimental work.—A. J. COOK.

This is purely a theoretical matter, and one that can only be tested practically on a large scale. A large brood-nest tends to discourage swarming. I question very much whether the matter of inverting will affect the matter either way. Bees will swarm unaccountably at times; and then again they will not, and cannot be made to do so. We have much yet to learn in this direction.—J. E. POND.

A colony in such a hive so manipulated and kept well shaded, would be much less apt to swarm, and your results in surplus honey are what my experience would lead me to expect. You bring about many of the same conditions that I do with my new hive. You miss the advantages of "contraction," and I greatly prefer interchanging the parts of the horizontally divisible brood-chamber, to the practice of inverting. There is still left the natural instinct of the bee to re-produce the species, and as yet I do not claim to be able to entirely prevent *all* issuing of swarms.—JAMES HEDDON.

After repeated trials, you are the most competent person to answer the question.—THE EDITOR.

Shippers vs. Honey-Dealers.

Query, No. 387.—A, (who is a bee-keeper, acknowledged expert and good judge of honey,) orders of B, (who is also a bee-man, and an extensive dealer in honey,) a case of California honey. B obtained the case and ships it to A. A, upon its arrival, examines the honey, and at once concludes it is *one-half or nearly all glucose*; he writes B to that effect, and refuses to pay for it. B replies that the honey was purchased specially in good faith for A's order, and unless something more than A's simple "Ipse dixit" is advanced as proof of adulteration, B refuses to accept the return of the honey, and must have the amount paid; at the same time he suggests arbitration.

In such a case as the above, upon whom does the *onus* of proof of purity lie? And is a honey-dealer at the mercy of any customer who, on examining a shipment of honey, decides (without subjecting to any test whatever) it is adulterated? What course should a dealer adopt on receipt of accusation of adulteration?—Penn.

The *onus probandi* should rest upon A. B's course is correct, and he does wisely in suggesting arbitration.—J. P. H. BROWN.

This is a legal question, not an apicultural one. I should suppose that the accuser must prove his accusation.—W. Z. HUTCHINSON.

This is out of my line of business, but I should say that a chemical analysis should be had to decide the matter.—G. M. DOOLITTLE.

At first B should have satisfied himself as to the purity of the honey. If it is not pure then it should find its way back to the California producer. A should prove by competent judges that it is adulterated. A honey-dealer is at the mercy of the customer, and the more so when he ships honey a long distance on credit.—C. W. DAYTON.

In this case B is simply a middle man, and should send a bill from the party from whom the honey was obtained. This would be B's voucher that it was California honey. Unless A can prove that the honey is not what he called for, "California honey," he will have to pay for the honey sent. What course should a dealer adopt, would depend upon the parties involved.—H. D. CUTTING.

I should think that B can collect of A without offering any proof, and A must prove the honey impure if he would avoid payment. I do not, however, consider those who answer queries in this department authority in a matter of this kind. We are supposed to answer questions because we have had experience in bee-keeping, and a man, especially a lawyer, who never saw a bee, could answer this question just as well or better than we.—C. C. MILLER.

The burden of proof rests with him who first claims the honey to be adulterated. If nothing more than assertion was needed to justify one in refusing goods, every fickle-minded rogue could use it to very bad purposes. Have the honey analyzed, and *then* you will know about as much concerning it as you do now; possibly more.—JAMES HEDDON.

Were I A, I should send a sample of the honey to other experts to secure their judgment as to its value and quality. Were I B, I should do the same. Both should be willing to arbitrate. I would never go to law, but would always try to be so fair in dealing that any person with whom I had a difference, would leave the matter to disinterested parties for settlement. Law in such cases is a poor remedy; I guess that we may safely say a "fraud and a delusion."—A. J. COOK.

This is purely a question of law, and as such has no place—at least should in my judgment have none—in this department. Opinions of those others than lawyers or men versed in the law, can but be of little value; and the gratuitous opinion of a lawyer given here, would not be justice to his brothers in the locality of "Penn." If "Penn." will write me personally, I will answer him, however, without charge.—J. E. POND.

B is right. If we had to prove our honey to be pure, every time a fool calls it adulterated, we would have to spend hundreds of dollars in chemical tests, which might be as unreliable as the fool's assertions. We do not believe that there is any adulterated California honey, although some say that they adulterate it in the East. Honey is cheaper now than glucose, especially in California, but some people suspect every one else of being dishonest, and will believe a falsehood sooner than the truth.—DADANT & SON.

When "A" received the case of honey—never having before seen it—it was proper for him to inspect it, and he might reject it, if it was adulterated, or not what he ordered. If this was not allowed in law, the purchaser at a distance would have no show for his rights. But should B feel agrieved, believing he had filled the order properly, he would be the plaintiff in his action for his pay, and the rights of the parties would be litigated. Just as long as glucose and sugar syrup is fed to bees we will hear of such cases as this.—G. W. DEMAREE.

It is hardly probable that the honey is adulterated, because it will not pay at the present prices of both honey and glucose. If A claims that the honey is adulterated, he should at least attempt to prove it. Arbitrate it by all means.—THE EDITOR.

Queries Waiting their Turn.

One, whose queries had been waiting for some time, wrote to us a rather "rough" letter, hinting that we were acting unfairly in not letting his queries be answered earlier. To convince him and others that the Queries *are* on hand, and to prevent a repetition or duplication of the questions (as well as to show the order of publication), we will here print a portion of those now in type, awaiting their turn for publication:

Query, No. 388.—What are the best packages to put up honey in for retail, before it is granulated?—J. G.

Query, No. 389.—In doubling up late swarms or weak colonies, do you think it best to kill the queen of the last bees you put into the hive, or let the bees do it themselves? I suppose we hive many queenless colonies.—H. C. G.

Query, No. 390.—1.—What race or strain of bees make the thinnest cell-walls, or use the least wax in comb building, and what use the most? 2. Would you recommend a strain that built heavy combs if you had to ship honey some distance to market?—G.

Query, No. 391.—I use a hive holding 9 frames about the Langstroth capacity. After swarming I wish to reduce the number to 7 frames. Would I secure as much honey by using two dummies, one on each side of the brood-nest with a bee-space all around the dummies, or would it be best to use a close-fitting board, and shut the bees out from passing around them?—Subscriber.

Query, No. 392.—Would it be advisable to make the slots in the sections, so that when two are placed together they will be queen-excluding, and thus save the expense of queen-excluding honey-boards? If not, what would be the objection to this plan?—Ky.

Query, No. 393.—Have we what may be called gentle strains of bees that are the equal, as producers of comb honey, of some of the more ill-tempered varieties? In other words, does ill-temper and extra-working quality exist in bees as inseparable factors?—L.

Query, No. 394.—Having 6 colonies of bees, 4 of which are in box-hives, and all in the cellar (here we put them out in the latter part of April), and wishing to stimulate them for rapid increase, will it be wise or prudent to transfer them when first put out of the cellar, as I do not want them in box-hives?—A. G., Vt.

Query, No. 395.—Is there any successful method of catching swarms as they issue from a hive?—Monticello, N. Y.

Query, No. 396.—In running an apiary for comb honey, desiring no increase, and using the latest improved hives and supers, how many colonies can one man, having a good knowledge of the business, handle so as to bring the best returns for the money invested and the time spent?—J. C., Ills.

Query, No. 397.—1. Would it be advisable to move 30 or 40 colonies of bees 14 miles the latter part of July, on a spring-wagon, in order to get them in a locality where they would work on buckwheat, there being no buckwheat in this locality. 2. What would be the best way to ventilate each hive while moving them?—Pennsylvania.

Query, No. 398.—Is a cross between Carniolans and Italians a profitable bee?—H. W.

Query, No. 399.—Is not an unpainted hive both warmer and drier than a painted one, if not permitted to become wet?—H.

Query, No. 400.—1. Will bees work in the sections as well with a bee-space above as with a close cover? 2. Would this prevent the use of so much propolis above the sections?—W. J., Tenn.

Query, No. 401.—Do bees consume more honey when they have an occasional flight, than they do in continued cold weather—on the summer stands?—Arnold.

Query, No. 402.—What is the best and most feasible method for "building up" colonies in the spring, in time for the white clover honey harvest?—E. B., Ills.

Query 403.—I am troubled about getting bees out of the sections when the latter are filled with honey. I use two-pound, close-top sections. I have to take the sections out of the case and brush the bees off. Can you inform me of any better way?—Wisconsin.

Query 404.—1. Ought the super or case of sections be put on the hive of a swarm at the time of hiving? If not, when? 2. Ought they to be put on the hives of old colonies before the brood-chamber is filled with brood and honey?—E. & W. M., Va.

Query 405.—What is your actual experience in regard to bees tearing down queen-cells when the cells are inverted?—Missouri.

Query 406.—Can you give any reason why bees should swarm in January, leaving honey and brood in their hives, also queen-cells and a few bees? The day they swarmed it was very pleasant, and the sun was shining.—Louisana.

Query 407.—Recently I was skinning a steer that had choked to death, when I saw several bees eagerly sip the blood as it flowed from the several veins. 1. Did any one ever notice bees do this before, and at what season of the year? 2. Can you suggest any reason for their gathering blood, as plenty of water was near them?—Mo.

Query 408.—I use an 8 frame Langstroth hive; if I change to one having 10 frames, will I get fewer and larger swarms? Will I get more comb honey?—Y., Maryland.

Query 409.—Suppose an earth-roofed cave, half under and half above ground, frost-proof, well drained, well sub-earth ventilated, containing a trough holding 2 barrels of water, into which, and from which, by a sub-earth pipe passes 4 or 5 barrels of fresh water every morning and evening, from a well (the temperature of which water is 46 degrees Fahr.) 1. Would such a cave be a good winter repository for bees? 2. Will the trough of water be a benefit or an injury to the bees? 3. How many colonies will be safe in such a cave, the dimensions being 10x15 feet, and an average of 6 feet high?—S., Central Ills.

Query 410.—Is it essential to extract from the brood-chamber in the production of comb honey?—T. P., Va.

Query 411.—All other conditions being equal, how much more comb honey will one colony or 50 colonies of bees store in brood-frames than in one-pound sections?—Ohio.

Query 412.—Mr. A wants to try wintering his bees in his cellar, which communicates, by a stairway, with the kitchen above. 1. Will it be in any way a detriment to the health of his family to have his bees in the cellar? 2. How large a room must be partitioned off for 30 colonies? 3. Will it be any benefit to whitewash the room before putting in the bees?—H. D. S., Pa.

Query 413.—Will bees winter better on old than on new combs?

Query 414.—How many frames of the Gallup size would be best for producing comb honey, where the honey harvest continues from the last of May until the last of July, with generally a fall crop?—B., Iowa.

Query 415.—1. Can extracted honey be put on the market of as high and delicate a flavor as comb honey of the same kind? 2. If so, give the best method of securing and handling the same?—N. J.

Query 416.—1. When the standard Langstroth hive is used for producing extracted honey, is it best to use full-depth second-stories or shallow supers on the tiering-up plan? 2. How deep should the frames for the latter be? 3. What thickness should the top and bottom bars be to prevent sagging?—New Jersey.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest: O~ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Sections Filled with Comb.

C. H. DIBBERN.

In 1884 I wrote an article in the BEE JOURNAL strongly condemning the use of sections filled with combs from the year before, expecting to stir up a "hornet's nest;" but beyond receiving a card of thanks from several prominent bee-keepers, little more was said about it, at the time. When in recent numbers of the BEE JOURNAL I found such bee-keepers as Messrs. Doolittle and Thielmann, and Mrs. Harrison, still advocating a policy that had proved so objectionable to me, I concluded to write again. I am very glad Mr. Doolittle has finally concluded to knock this "chip" off my shoulder. I am both interested and aroused, after reading his criticisms on page 37.

Many years ago—perhaps following the advice of Mr. Doolittle, who claimed, I believe, that combs saved from years before were worth their weight in gold—I carefully saved all sections or boxes containing comb, as well as every particle of comb that could be used for surplus boxes or sections. As this was before the advent of good comb foundation, this was perhaps the best that could be done then. When I began to use sections and foundation I continued the same course, saving every section that contained comb that was at all fit to use. I soon noticed, however, that there was a marked difference between sections that contained the combs, and those filled with the Dadant thin foundation, after the bees had finished them, although side by side on the same hive. Those that had contained the empty comb would almost invariably grade "No. 2," while the honey in new sections built on foundation was just "too nice for anything," and would just as surely grade "extra No. 1."

Nor was the above the only difference, for I found that after these sections of honey built from old comb, had been on the racks a month or two, they would show a sweaty appearance with indications of souring, such as bulging off the caps, and the honey running out. This disappointed and disgusted me greatly. The room was as dry as could be, and I also noted that the sections with foundation were in perfect condition. Of course when I came to crating the honey for market, a re-grading would be necessary, and much of my "No. 2" comb-filled sections would now go into "No. 3," while some even had to be extracted to save it, and the empty combs would again be carefully saved; for had not Mrs. Harrison said they were worth $5 per pound?

I had this experience eight or ten years ago, and it puzzled me greatly. Still thinking that so great a bee-keeper as Mr. Doolittle could not possibly be wrong, I concluded that the fault must be mine, in removing the honey too soon after it was capped by the bees; and I then tried leaving it on the hives two or three weeks after it was finished. Of course this was objectionable in several ways, but I could see no other way out of the difficulty. I soon found that the bees themselves had trouble with it from souring, and were removing great patches of it after it had been sealed, and I was obliged to leave many sections until fall, when I had a kind of speckled honey.

Still not willing to "cut out the old combs and burn up the sections," I continued to save the best, and used them to some extent; even last year, although very dry, the result was little better.

I do not put on surplus cases until the honey-locust blooms, which with us is the commencement of the white honey harvest. I care little for fruit-blossom honey, as it is rather dark, and it is then too early to greatly increase the bee-space. I have no trouble whatever in getting the bees to take possession of the sections at once. Now, if Mr. Doolittle cannot get his bees into the surplus arrangement, without all the puttering and coaxing described by him, I would advise him to change his hives at once, or procure bees that have some "get up" to them.

Now let us examine the expense account, of which Mr. D. tries to make so much. Good white-wood two-pound sections can be had for about ½ cent each; and the wax in the comb in a well-filled section to be cut out, will buy a nice sheet of comb foundation, so that the actual loss is only ½ cent for each section burned. On the other hand I have a nice section of No. 1 honey, that I can sell more easily, give better satisfaction, and sell for 2 cents per pound more than the sections produced on the Doolittle plan.

I naturally conclude that I am more than 1½ cents per pound better off; that I am not "throwing away my money at the birds;" nor that my family is likely "to come to want" by pursuing such a course. I do not advise burning all the sections; if any are nice and clean they may be used again, after cutting out the combs; but if Mr. D. can make any money scraping propolis glazed, honey-besmeared sections, his time must indeed be of little value.

I consider this subject of vital importance to producers of comb honey. I have reasons for my conclusions, which I have not the space to give now. I want all bee-keepers to produce the very best honey in the most marketable shape, and that cannot be done by using old sections filled with comb.

Milan, ~O Ills.

For the American Bee Journal.

Forced Respiration, Bee-Legislation, etc.

G. W. DEMAREE.

Dr. Tinker's reply to my article, found on page 808 of the BEE JOURNAL for 1886, presents views so nearly in accord with my own observations that I would feel inclined to let the matter rest, so far as he and I are concerned, if he had not attempted to support that monstrous error about bees "exercising" to "warm up" when suffering from low temperature. The Doctor admits that bees do not "kick up their heels, or get on a tear," but he would have us believe that they "blow!" That is, when they wish to "warm up" they "simply begin a forced respiration, the opposing force coming from the effect of low temperature." Amazing philosophy! The fact is, a rising temperature outside of the hive is the only "force" that bees can utilize to raise the temperature in the hive, or "warm up," as the Doctor puts it. The "opposing force" to the respiration of the bees must be warmer air than that with which they are surrounded while they are clustered under a temperature too low for their safety, for an unlimited time. This fact alone explains why it is that a cellar kept at a low temperature for a great while becomes a very sepulcher to the bees.

What Dr. Tinker brings forward as evidence is the very opposite of the facts so well understood in connection with all warm-blooded animals. "Forced" or involuntary "respiration" is nature's own method of *lowering* the temperature of the animal body; the "opposing force" coming from the effects of cool air drawn in, and expelled from the lungs by force of respiration. Bees, as well as all warm-blooded animals respire (or "pant" as we sometimes say) with forced rapidity when "over heated," but never when they are oppressed with low temperature. The reason that I can winter my bees in single-walled hives without any loss, if the bees have plenty of stores, is because we have intervals of warmer weather which rouses the bees from their confinement in the cluster, and enables them to take food and recuperate strength for the next cold snap, and so on through the winter, until returning spring calls them to active labor.

I once thought that because bees store food for winter, and because they would starve if their stores failed, that the bees must continue *active* at all times. But later observation has changed my views on this subject. I have found that during very cold spells of weather my bees in single-walled hives appear like dead bees between the combs, and when the temperature begins to rise, the bees gradually feel the effects, and arouse themselves in proportion to the rising temperature. These are litteral facts drawn from ocular demonstration, and are destructive of Dr. T's theory.

Bees in a cellar are in an artificial condition, and that they should remain active, or "rouse up" to take food in a temperature suitable to that condition, is not strange. It does not prove anything to the point in the present discussion. Dr. Tinker has, in his articles, brought out more interesting facts concerning the winter condition of bees than any other whose writings I have read, and therefore I was surprised to see him support—even in a modified form—the error that bees resort to "exercise" to oppose the effects of falling temperature. It is strange that Dr. T. has failed to see that this error was invented to bolster up the "pollen theory," which Dr. T. as well as myself rejected all the while.

Before closing this article I wish to call attention to some practical matters which seem to be engaging the minds of bee-keepers just now. First, in regard to low prices for honey: Past experience of other producers ought to satisfy honey producers that no good can be derived from "organization," or any other scheme in the hands of producers, to "force up" the price of their products. "Supply and demand" must ultimately prevail over all schemes. Looking at the matter as I do, we have arrived at no crisis yet. There can be no real "glut" as long as the honey market is undeveloped. It seems to me that any person of ordinary forethought should have been able to see that production of honey is likely to "out run" the development of the market. This is the only trouble now.

There is much to hold up the drooping spirits of honey producers yet. Our honey market is undeveloped—there can be no real "glut" as long as this state of things exist. "The way out" is to develop the honey market, and this must be done by individual effort. Work up a demand for honey in every corner of the country, and the "crisis" will be pushed a long ways ahead.

Another point of practical interest is "legislation," to define the rights of bee-keepers. By what authority this could be done, no one has ventured to say, though some one has intimated that the Congress of the United States might look after the matter as to whether my neighbor B or myself should yield the right to pasture the lands of the farmers of this vicinity with our bees. But we are not informed as to where the law may be found giving to Congress of the United States the right to regulate the "domestic" affairs of the States.

But to be serious, from what source could any law-making power get the authority to pass and enforce a law to prevent any man from keeping bees on his own premises? Of course this would have to be done in fact or in effect to carry out any measure settling a question of "priority of location." My "location" is my lands, and by the right of occupancy I keep my bees on my own premises. This simple statement of fact makes interference impossible. If bee-keepers will be so inconsiderate and unwise as to crowd any one vicinity with bees until they become unprofitable, the law of success and failure will have to work out the problem just like any other business.

As to the question of "nuisance:" To ask the question, as many have done, "Is bee-keeping a nuisance?" is "kicking before they are spurred." Bee-keeping is an agricultural pursuit, and has the same protection under law that other branches of agriculture enjoys. But it should be borne in mind that the "live stock" handled by the bee-keepers is not so easily governed as some other species of live stock are, and for this reason the bee-keeper must practice extra care if he would keep out of trouble. Society is necessarily a compromise, and a nuisance law is absolutely necessary for the man who "won't budge an inch."

Christiansburg,♂ Ky.

For the American Bee Journal.

Eastern Iowa and W. Ills. Convention.

The Eastern Iowa and Western Illinois Bee-Keepers' Association held its fifth annual convention in Moore's Hall, Davenport, Iowa, on Feb. 23 and 24, 1887. The meeting was called to order by President Geo. L. Gast.

Communications were read from H. Chapman, in relation to the "Chapman honey-plant," and from N. N. Betsinger, in reference to a "wire separator."

Mr. Jacobs stated how he had disposed of his own and the crop of honey of several of the members present, by traveling through the North and West, showing the superior shape in which his honey was produced; in this manner he sold about 22,000 pounds, all of which was delivered with little or no breakage. Mr. Jacobs prefers one-pound boxes for shipping, and is very enthusiastic over the way our honey compared with that of California, both as to flavor and neatness of packages.

After discussing the question, "Do bees puncture grapes?" the following resolution was read and unanimously adopted:

"WHEREAS, Difficulty has arisen between certain parties—bee-keepers and grape growers—as to bees puncturing grapes; therefore, be it

"*Resolved*, By this convention, which is composed largely of grape growers, that in the past experience of grape-growers and bee-keepers, members of this convention, that we have not in a single instance found grapes worked upon by bees, unless first punctured by birds or insects."

The reports of last years' honey crop was taken, and 23 members reported 1,113 colonies, spring count, and 116,887 pounds of honey; also 413 pounds of wax.

In an address by the President, on the prospect for the white clover, he gave it as his opinion that as the winter has been very favorable, we have a good chance for a crop, but not one-half that of last year, from the fact of last summer being so unusually dry, that the new seed had had very little chance to germinate; but he consolingly added that we may have a good fall crop.

Officers were elected for the ensuing year as follows: President, Geo. L. Gast, Le Claire, Iowa; Vice-President, J. E. Hunter, Wyoming, Iowa; Secretary, H. S. Dibbern, Milan, Ills.; and Treasurer, Miss Kate E. Case, of Davenport.

The convention adjourned until the third Wednesday and Thursday of February, 1888.

H. S. DIBBERN, *Sec.*

For the American Bee Journal.

Legislation for Bee-Keepers.

DR. C. C. MILLER.

On page 794 of the AMERICAN BEE JOURNAL for 1886, Mr. W. H. Osborne presents his views, and, as I understand it, from the stand-point of a member of the legal fraternity. He makes a change in the programme by touching lightly on the "desirability," and discussing the "feasibility" of legislation. To tell the plain truth, I do not at all feel sure of the feasibility, but I think the desirability so great that it is worth while to talk about it a good deal to find out if there is no way by which the thing can be brought about. But let me ask why does Mr. O., like several others, insist upon making priority of location an integral part of the subject under inquiry?

Referring to the minutes of the Indianapolis Convention, we find the thing to be inquired into was "the desirability and feasibility of securing such legislation as will give a bee-keeper an exclusive right to keep bees in a certain territory." Now is there any "priority" in that? I do not see why any should refer to it at all, excepting Mr. Heddon, and he very properly refers to it because he takes the ground that priority of location gives a man such advantage that he needs no legislation. Let us therefore leave priority out of the question.

In a nutshell, the matter looks to me something like this: The bee-keeper, like the farmer, cannot prosecute his business without occupying a certain amount of territory. It is for the general good that the nectar be gathered, just as it is for the general good that the ground be cultivated, and that this be done it is for the general good that each man, bee-keeper as well as farmer, have his own portion assigned to him so that there be no conflict. Take the cattle-grazing plains where cattle are running on free grass. For a time it may be well enough that there shall be no ownership of land, but will it not be the best way to have the land divided up and each man own his own territory? Does not the same thing apply to bee-keeping? As Mr. Osborne makes no objection to the desirability, only that priority right is undesirable, and as the priority right business need not necessarily enter the question at all, we can have no discussion upon that point.

As I before said, I am not so certain about the feasibility, but I am quite anxious to believe in it, and, lawyer though Mr. O. is, there is a certain tone of candor about his article that makes me hope that he will listen with good-natured patience to one who differs from his views, even if he is entirely ignorant of Coke and Little—is it *-ton* or *-john?*

Mr. Osborne thinks that it would not do to use the license plan, and I think I agree with him; at any rate I think it is not the best plan. How would it do to take the plan I have already hinted at, and let government sell out the territory just as it sold out the soil for cultivation? The first thought may be that the territory has already been sold and cannot be sold over again, but a lawyer will hardly make that objection, for, so far as nectar is concerned, the territory has never been sold, and no land owner, I think, pretends to control it. Besides, the farmer, although in a general sense he owns his place and can do what he pleases with it and on it, really owns it only for certain purposes or uses. He can by no means do exactly as he pleases. For instance, some years ago I bought some hives with movable frames and put them in use. Mr. R. C. Otis called on me and told me they infringed on a a patent-right owned by him, and I cheerfully paid him $10 that I might own the 37 acres that I already had paid for and owned for some other purposes, but for the purpose of using Langstroth hives, the territory up to this time had not belonged to me.

With this plan of buying territory I think Mr. O. will not hold his objection that monopolies would be fostered, for there would be no more monopoly in bee-keeping than in farming, but the same competition.

By the plan I suggest, Mr. O's last objection, you see, will disappear, for Mr. Smith would not pasture his bees on lands of Mr. Jones, but on his own. If the objection is made that Jones owns the nectar that is on his farm, it may be taken from him if it is for the general good just as my land may be taken from me, to be used as a road, and if he is damaged thereby let the damage be paid. But I think it will easily appear that instead of being damaged he is benefited by the visits of the bees.

I think I agree with Mr. Osborne in his closing sentiment, that the well-posted bee-keeper can defy competition (under favorable circumstances), but the fact still remains that under existing laws he may be so encroached upon like Messrs. Heddon and Doolittle, that he may suffer loss therefrom.

And now, if Mr. O. thinks there is nothing unfair about it, I would like to come over on his side for awhile, to say that an objection occurs to me that he has not mentioned. Suppose we consider three miles as far as bees travel, and I own three miles in every direction from my home, putting thereon at my home enough bees to stock the ground. Whoever owns the territory adjoining mine may put apiaries all around me close up to my territory line, and thus take the greater part of the nectar that I thought was mine. Is there any way out of this difficulty?

Since writing the above, Mr. C. G. Beitel, on page 807 of the AMERICAN BEE JOURNAL for 1886, gives us another legal opinion, and thinks that in Pennsylvania class legislation would not do. Now, in the part of Pennsylvania where I was born and where I spent many happy days, class legislation was and still is very popular, if you call it class legislation for a farmer to purchase and own his own farm. And just that same kind of legislation I think is needed for the bee-keeper. Why does Mr. Beitel, too, assume that priority of location has anything to do with legislation?

And now, on page 9, Mr. J. R. Roebuck desires legislation against cider-mills. I have had full benefit of cider-mills and sorghum mills, and wish they were away, but I do not think it would be a good plan to ask for any legislation concerning them.

Marengo,♂ Ills.

For the American Bee Journal.

The Use of Comb Foundation, etc.

W. Z. HUTCHINSON.

It is evident that those who oppose the non-use of full sheets of foundation in the brood-nest when hiving swarms do not fully understand my position.

On page 120, Mr. Cates says: "If it should be a good season they (the bees of a swarm hived upon empty frames) will just about fill the brood-chamber of a Langstroth hive. When hived upon combs or foundation each colony would store from 40 to 60 pounds of fine honey, and leave plenty in the brood-chamber for winter."

If a very large brood apartment is used, a good share of it is virtually devoted to the storing of surplus, and I have always advocated the furnishing of the surplus apartment with foundation or drawn combs. When I hive a swarm upon empty frames, or rather upon frames furnished with starters only, the brood-nest is contracted so that some of the bees must work in the sections, which are taken from the old hive and contain combs in all stages of growth. By this method I have always secured more honey than when full sheets of foundation or combs were used in the brood-nest.

Doubtless all would be glad to save the expense of foundation, and secure more honey besides; but it seems difficult to *fully* explain, in a few short articles scattered through the different bee-papers, so that every one will comprehend *all* the points that have a bearing upon this problem; and, at the suggestion of Mr. A. I. Root, I have written a book upon the subject, in which I have also touched briefly upon some other important points connected with the profitable production of comb honey. The book is now in press, and as soon as it is published, the price and other particulars will be stated.

CAPPINGS OVER HONEY.

I would say to Mr. C. P. Dadant, that the probable reason why honey in sealed cells does not candy, and *does* candy in unsealed cells, is because the latter has *no* protection, while the former has, although the protection may not be absolutely impervious. There is also another point: Unsealed honey may not be so thoroughly ripened as sealed honey, and the more completely that honey is ripened the slower it is to candy.

If the cappings over honey are absolutely impervious, I do not understand how the honey can so increase in bulk as to ooze from the cells, as it does when we say that it "sweats."

Rogersville,♂ Mich.

For the American Bee Journal.

How to Prevent Swarming.

B. F. WOODCOCK.

I have now read three reports of enormous crops of honey without any increase; others say, "I allow no increase." One man with over 150 colonies, spring count, reports the best flow of honey he ever saw, and then closes with great complacency, saying, "I allowed no increase." Will some of the brethren please tell us just how to do this thing during a a copious flow of honey?

I started last spring with 69 colonies, and secured 8,450 pounds of honey, about three-fifths being comb. I wanted but little increase, but I got over 50 swarms, all the same. Yes, in spite of tiering up, ventilating, cutting out queen-cells, hiving back and driving back, out they came pell-mell,helter-skelter! My increase was 50 colonies,but how many swarms issued I do not pretend to say. I put two and three swarms together, or they put themselves together, more properly speaking. One day I had 11 swarms in about 60 minutes; while three were in the air, my assistant (a little boy 12 years old) cried out: "Here comes another one!" "Yes, and by the way, look at No.26 kicking each other out."

When I hived a swarm back, and cut out queen-cells, they often took the sulks and would not work even when I gave them more surplus room than they could occupy. I killed the queen in several instances, and cut out queen-cells after 8 days, and yet they would not work.

I can control swarming to a very great extent by tiering rapidly and giving room a little before they need it, but imperfectly filled sections has been the result with me every time. How to prevent swarming, and at the same time sacrifice neither the quantity nor the quality, or rather the perfect finish of our honey, is with me a vital question at this time, and I will ever hold in grateful remembrance the one who shall tell me how to do it.

Pleasantville,♀ Iowa.

For the American Bee Journal.

The Wisconsin State Convention.

The Wisconsin State Bee-Keepers' Association met at Madison, Wis., on Feb. 3, 1887, with some 60 bee-keepers in attendance.

The first subject introduced was, "How to sell honey?" upon which Mr. E. A. Morgan, of Columbus, read an essay. He recommended selling comb honey to grocerymen by commercial travelers, in a manner similar to that in which other goods are sold. He advocated selling extracted honey in 5 and 10 pound pails direct to consumers, and for this purpose going around among consumers once a month. He took strong grounds against shipping to commission men on account of their unreliability. The discussion of this subject suggested that we should not assert granulation as a test of purity, for some kinds of honey do not always granulate. Wild bergamot honey and honey-dew were said to be of this class.

An essay on "How shall we increase our profits?" was presented by Mr. Frank Minnich, who made the following recommendations:

1. An isolated place with plenty of honey-producing plants. 2. Cheap, convenient hives. 3. Not too many bee-spaces for the bees to fill with "mountains" of wax to climb over in reaching the sections. 4. Plenty of bees in the hive. 5. Small starters, that consumers may not object to the wax-centres in the comb. 6. Tiering up sections.

The statistics of bee-keepers present, so far as collected, showed 1,866 colonies, spring count; 3,039, fall count; 41,450 pounds of comb honey, and 144,412 pounds of extracted. The average yield per colony, spring count, was 99 pounds, of which about 28 per cent. was comb honey. The amount on hand yet was 10,440, being about 6 per cent. of the crop produced.

AFTERNOON SESSION.

President C. A. Hatch read his annual address, after which Frank McNay gave a talk on "Surplus receptacles." He recommended shallow frames with separators for holding sections; also favored cases for holding sections, giving the bees but a few at first, and increasing the number as the colonies became strong and the honey flow increased.

Mr. Gammon and a few others prefer to dispense with separators, but the majority favored their use.

Dr. Vance read an essay on "The value and uses of honey—its adaptation to the human system," which will be useful if published hereafter.

Hon. George Grimm being introduced, made a few very pleasant remarks, after which he was questioned upon the subject of "Wintering bees." He said that if other conditions are all right, a cellar may be either wet or dry. Pure food, a slight upward ventilation of the hive, strong colonies, and a proper temperature are the most important conditions.

"What causes swarms to issue late in the fall?" Mr. Grimm said that it is sometimes caused by the bees superseding their queens. Mr. Robinson said that buckwheat blooming late sometimes causes it.

Mr. E. France read an essay on "Controlling increase." He extracts once a week, destroys queen-cells if any are started, and divides the strongest colonies by taking two frames of brood with adhering bees, to form new colonies.

EVENING SESSION.

The evening meeting was a very pleasant one. The principal subject discussed was "Marketing Honey," upon which nearly every one had something to say. Dr. Vance, Rev. H. A. Winter and others advised the distribution of small tracts or leaflets calling attention to the purity, excellence and cheapness of honey as an article of food. Mr. Winter recommended peddling it near home, and showing it from house to house. Mr. Wilcox approved of peddling, provided it should not be peddled at the same price at which it is sold to retailers. If we sell small packages to neighbors at the same price that we sell it to grocerymen, we shall soon destroy their retail trade.

The convention did not think that a honey-producers' association for the purpose of fixing, controlling or regulating prices of honey could ever be made practicable.

The following officers were elected: President, C. A. Hatch; 1st Vice-President, H. A. Winter; 2nd Vice-President, George Grimm; Secretary, F. Wilcox; and Treasurer, M. J. Plumb.

The convention then adjourned to meet at the call of the President, in February, 1888. F. Wilcox, *Sec.*

For the American Bee Journal.

Moving Bees before Wintering.

THOMAS STOKES.

The queries during the past year have been a volume of knowledge, but none of them more opportune than No. 315, where the question is asked if bees would be as likely to winter well hauled 80 rods, or be picked up and carried right into the cellar.

As I was to move to another place in the spring, I thought it best to dig a cellar and over it build a workshop, and move the bees into it where they would be ready in the spring. There is no cellar here fit for bees, and for three years I have wintered them in clamps; but in this cold climate of such severe changes, as we have several times through the winter when the mercury will go down from about freezing to from 10° to 20° below zero by morning, it is too much for anything but an underground repository, and have them in first-class condition in the spring.

On Nov. 17 it was mild in the morning, and the ground was thawed about an inch in depth. I drew them up in a light wagon, taking the 48 colonies in five loads, having first securely fastened them in their hives. In the evening I took a lantern, opened all the hive-entrances, and the bees came rushing out, but very few flew. After opening all the entrances I darkened the lantern and waited awhile; on nearly all the hives they were hanging out in front similar to the way they do on a hot day in the summer.

A few evenings afterwards I went in again and found they had returned to the hives, but a few of the most populous were uneasy. The temperature was 47°, so I left the ventilator wide open and let it cool down to 40°, when they were all quiet. It still keeps at that temperature with the ventilator closed by filling with pea-straw, although we have had much severe cold weather.

A few days ago I was in the cellar and they were all quiet, with very few dead bees scattered over the cellar bottom. So it appears the shaking did no harm in this case.

Minesing, Ont.

For the American Bee Journal.

Combinations for Honey-Producers.

J. M. HICKS.

On page 106 Mr. Jno. A. Buchanan has given us something of practical value. It seems to me, from a long experience, that as a rule all combinations and unions have proved to be of very little value to the masses, but often a bonanza to a few at the expense of the many.

We also find that for several years past the quotations of honey (not glucose) has been very low by the various commission men in many cities, and especially in Cincinnati and Chicago; while at the same time I was retailing honey of my own production at 20 cents per pound for extracted, and 25 cents per pound for comb honey. I have disposed of my 1886 crop of 4,000 pounds at 20 cts. per pound, all of which has been sold direct to the consumer, and not a pound went into a grocery-store or to a commission merchant.

I have long since found that it takes industry to produce as well as sell honey at a paying price. The value of industry is not very much known by our commission merchants, except at the expense of the producer; hence every producer should be his own salesman, provided he always desires good returns.

It does seem to me, viewing it from a practical stand-point, that we as a class of honey producers cannot afford to form an organization for the purposes as stated by Mr. Baldridge, to fix a price for honey. It seems to me to be more like a gambling scheme, and should not be tolerated by the honey-produces. But as remarked by Mr. Buchanan, I prefer to control and sell my honey, when I have it, direct to those of my immediate vicinity who know me and desire a pure article; not to sell at an exorbitant, but at a fair living price to the producer. I have now been in my present location for over 15 years, and I have never sold a pound of honey for less than 20 cents.

Battle Ground, Ind.

For the American Bee Journal.

Priority of Location and Inventions.

O. M. ALVES.

I wish to enter a protest against certain views held by correspondents of the BEE JOURNAL. Mr. Heddon thinks that the claims of "priority of location" are right in morals, but doubts whether legislative bodies could be induced to enact a law for the enforcement of the same.

Dr. Miller not only accepts the principle as right, but goes further, and gives it as his opinion that it would be practicable to make it statutory. I hardly think it necessary to debate the Doctor's latter opinion, for the reason that I think few could be found who would agree with him. I wish, however, to examine the subject with no reference to legislation. The claims of the principle rest on acquired property. There can possibly be no other basis. Its advocates will say that it has no legal rights, but that being founded upon morals, it by right should have, even though legislators fail to enact. There is much confusion here, let us attempt to dispel it.

First, upon what principle does property in general rest? Examine any standard treatise on the rights of property; consult any competent jurist, or properly analyze the subject for ourselves, and we will find that it rests upon the power to hold—upon the right of conquest, or upon public policy. Nowhere do we find an ethical principle at the bottom.

In a savage state man acquired property by occupancy or conquest, and held it by superior force. In time, as association and certain forms of civilization began to develop, the association or State said to the occupiers, pay tribute and otherwise obligate yourselves to the State, and the State will by its own power defend you in the enjoyment of your property. This is the basis upon which the rights of property-holders are founded to-day. The guarantee is from public policy, not from ethics.

It must be borne in mind, however, that there are many things neutral as to morals or ethics, but nevertheless proper, being founded in the needs of the existing state of society, and under this head lie the rights of property.

The great confusion of Dr. Miller and Mr. Heddon lies in the fact, that in this view all property is based upon ethical principles, than which there can be no greater misconception. It has been seen from the foregoing upon what property does rest. In the present state of society it is very important that property's established rights should firmly hold, but as men slowly grow less selfish, these demands of property will and are shading down this harshness. While this process is going steadily on (albeit very slowly), we are asked to acknowledge in theory at least, new and harsher views—views that even the oldest common law never contemplated. The demand seems to me almost monstrous in its selfishness.

Mr. Heddon's views on inventions, on page 22, are likewise defective. A man can have no right to an invention save that which organized society gives him, and to hold this right he must use such diligence and such prescribed methods as society requires. When he fulfils these methods, society through its holdings of public policy will give him his inventions, as so much acquired property. When he fails to satisfy these prescribed methods, the same public policy will deny him the acquirement of such property. All this is as it should be.

It is true that a man of delicacy would hardly make use of another's invention, even though unpatented, when the inventor objects. But his declining so to do, cannot be construed as an act of acknowledgement of the other's property, but rather as the concessions of an unselfish man to the demands of a selfish one.

Let us as law-abiding citizens sacredly respect all acknowledged property, but let us not for the sake of a growing nobler humanity, demand new and harsher lines of selfishness.

Henderson,+o Ky.

Local Convention Directory.

1887. *Time and place of Meeting.*

Mar. 16.—St, Joseph Inter-State, at St. Joseph, Mo.
E. T. Abbott, Sec., St. Joseph, Mo.

Apr. 12.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

The Proposed Michigan Bee-Law.—Chas Walker, of Bravo,♀ Mich., writes as follows on Feb. 28, 1887:

I have been circulating a remonstrance to the Bill against keeping bees in this State, now before the legislature, and I have the signatures of most of the neighbors of the originator of the Bill, not one refusing to sign it. I have sent it direct to Mr. McCormick, who introduced the Bill, and I hope that if Prof. Cook is in Lansing when this Bill is reached, he will see that justice is done. There has been no trouble with bees in this county (Allegan) that I have ever heard of, and why Mr. McCormick should take the course he has, is quite a mystery to me.

Chaff Hives for Winter, etc.—J. H. Andre, Lockwood,♀N. Y., on Feb. 21, 1887, says:

Bees have not had a good flight here for over three months. Those on the summer stands will be apt to winter poorly, especially those in chaff hives. I do not see how any one can advise the use of the chaff hives, for to my mind they are nothing more than refrigerators. They will keep the colony a little warmer during a protracted cold spell, but the cold will get in for all of that, and three or four hours of sunshine will have no effect in warming through the packing; while those in a single-walled hive will get warm enough to partake of food, and will be ready for the cold again. I have tested them in the same yard, and those in a single thickness of wall came through the best. Several of those in chaff hives perished with the cold with plenty of honey and clean combs. Would it not be a good plan where colonies come through weak, and the honey is sour, to put the bees on clean combs and feed? The high price of butter has caused honey to be used as a substitute here, and the crop will be used up cleaner than it has been for years.

Young Bees.—Jno. W. Snuff, Niles,♀ Mich., on March 3, 1887, writes:

I started last spring with 7 colonies, increased them to 18 by natural swarming, and took about 500 pounds of comb honey, which I sold at 10 cents per pound in my home market. The forepart of the season was good, but the latter part was poor on account of the drouth. I put the bees into the cellar about Nov. 20, and took them out for a flight on March 1 and 2. Several of the colonies had young bees almost ready to fly. The temperature of the cellar was at 40° to 50° all winter.

Quiet Bees, etc.—W. H. Miller, Berrien Springs,♀ Mich., on March 1, 1887, says:

I commenced the spring of 1886 with 15 colonies, the most of them being in good condtion. I increased them to 51 colonies, and most of them were put into winter quarters in very good condition. I also secured about 650 pounds of comb honey. I have my bees packed out-doors with sawdust, and I think they are doing very well so far, for they are keeping very quiet, and do not spot the hive much when they fly. They have had several chances for a flight since being packed, and I hope they will come out all right.

Wintering Bees, etc.—Alex. Rose, Sullivan,⊙Ills., on Feb.28,1887,writes:

I commenced last spring with 31 colonies of bees, increased them to 63. I lost some queens, and some colonies dwindled last fall which left over 50 pounds of fine white clover honey. I sold 11 colonies, 6 died during the winter, 41 have plenty of honey, and 2 are scarce of honey. I am feeding them. They do not seem to be as strong in numbers as at this time last year. I filled the caps with dry hickory leaves, which I shall leave on until warm weather. I believe they will help to keep the brood warm. I shall feed syrup for about 3 or 4 weeks, commencing as soon as the weather gets warm enough to admit of disturbing them. I heard that one man had lost all—5 colonies; another, 3 out of 50. I think that in small apiaries they are half dead. Men who had bees in good condition have lost much less. I am going to use 1-pound sections, 7 in a tier, 4 tiers to the hive, and will tier up as needed.

Using Comb Foundation.—John McKern, Dryden,⊙ N. Y., asks:

Does Mr. Demaree give a swarm full sheets of foundation or only starters, and are those swarms apt to cast other swarms when working for comb honey? I have had swarms in 2-story hives and working for extracted honey with plenty of room, swarm out after they had been to work some time.

[By request Mr. G. W. Demaree replies as follows:—Ed.]

My management depends on the the purpose I have in view. If I wish to prevent increase, I put the swarms on half the usual number of standard frames, using only starters in them, and fill up the spaces at the sides of the frames with division-boards cleated on their sides so as to make them stand ½-inch apart. Over all goes a metal queen-excluder, and on this sets the first "tier" of surplus cases. By this management the whole force of the new colony (swarm) is spent in producing surplus, and comes out as a mere nucleus, and is disposed of as such at the close of the season, either by uniting or letting them play out. If increase is desirable, I hive the swarms on full sets of frames filled with foundation, and give the colonies an abundance of room as fast as they need it, practicing the tiering system to supply their wants. If the queens are old there will be danger of swarms issuing, but ordinarily no swarms will issue from new colonies, if the queens are satisfactory to the workers. This influence, or queen condition, gives us the key to the situation.—G. W. Demaree.

Good Results.—W. H. Graves, New Carlisle,⊸ Ind., on Feb. 26, 1887, says:

I had 36 colonies, spring count, in 1886, and increased them to 70. They gathered over 2,000 pounds of comb honey in one and two pound sections, which I have sold in my home market for from 9 to 14 cents per pound, mostly for 12½ cents.

Bees Recovering from Diarrhea.—Chas. W. Banker, Menomonee,⊸ Wis., on Feb. 28, 1887, writes:

I put 17 colonies of bees into the cellar about the middle of November, 1886, all in good condition except 2 that were a little light in stores, but had plenty of bees; they seem to be all right as yet. When I put the bees into the cellar the temperature was 45°, Fahr., and after the middle of January the mercury dropped to 35°, Fahr.; it has ranged from 35° to 38° ever since, and still they are quiet and seemingly in as good condition as need be, except one colony that I noticed on Jan. 20, had a little touch of diarrhea, but they seem no worse now than they were 10 days after I first noticed them. *Do bees after being attacked with diarrhea ever recover? The colony was very strong in bees, and heavy with stores when I put them into the cellar. My bees are all in 10-frame Simplicity hives, and I put them into the cellar with the covers on, just as they were on the summer stands.

[*Yes, after a cleansing flight.—Ed.]

Happy Bees and Bee-Keepers.—Jacob Oswalt, Maximo,○→ O., on Feb. 18, 1887, writes:

I commenced the spring of 1886 with 20 colonies of bees in chaff hives. During the summer I harvested 1,000 pounds of comb honey and increased the number of colonies, by natural swarming, to 35. Last fall my bees gathered a fine lot of honey from buckwheat and fall flowers, and I allowed them to store it all away in the brood-chamber. In November I prepared them for winter on the summer stands in splendid condition. On Jan. 23 they had a regular frolic, and now they are all alive, strong and doing well. I have now as many bees as a novice can handle, and I feel like the boy who caught the bear, "I can't hold it, I can't let it go." The bee-keepers of eastern Ohio are in good spirits, and a good report may be expected from them the coming summer.

Hand-Holes in Crates, etc.—J. B., of Iowa, asks the following:

[1. What is the best method of cutting hand-holes in the ends of shipping-crates? 2. Also of making holes in brood-frames for wiring?

1. The usual method is to use a wabbling-saw, that is, a saw unevenly fastened on the saw-arbor; but we use and prefer a cutter-head in place of a saw.

2. Punch the holes with a set of brad-awls operated by a treadle.—Ed.]

Bees all Right.—T. F. Bingham, Abronia,♀ Mich., on March 1, 1887, says:

My bees are in fine condition, both those that are out-doors and those in the cellar. They have not seemed to care whether they had a flight or not, but to-day every bee that desired to do so, had a flight, and are all in good condition.

Honey-Production in California.—J. W. Johnson, McFall⊸ Mo., writes:

On page 118, Mr. Segars, of California, wrote about honey-production in that State, and bewailing the low price of honey, but he forgets that in that country they seldom have any loss of bees, and secure twice as much honey per colony as we do here, while we lose many colonies in wintering, and produce much less honey per colony. A man from this place went to Arizona last fall, and when he returned he told me that bees in that Territory produced 300 pounds of honey per colony, and that at no time of the year could they not get enough for their living. Here a bee-keeper must be at the expense of making a cellar, withstand blizzards, and often lose 50 colonies of bees in one winter; so I do not think that a bee-keeper in California ought to grumble at the low price of honey, for he can count on scarcely any loss, and an almost invariable honey crop. As to organizing to uphold prices, I think that such organization would be quite ineffectual—the country is too large for that.

The Need of Frequent Flights.—Green R. Shirer, Greene,♂ Iowa, on March 2, 1887, writes:

I examined my bees yesterday and found 4 colonies dead and 3 others nearly so; the rest had a good flight then, and I think they will come through all right. I had 51 colonies in the fall packed in chaff on the summer stands; they nearly all have diarrhea pretty badly. There are signs of a general break-up in the weather, and if our bees can have frequent flights they will be all right.

Frequent Flights for Bees.—D. M. Stoler, Saxton,♀ Pa., on Feb. 25, 1887, writes:

My bees had their first flight on Jan. 21, completely spotting hives and snow in relieving themselves. We have had five weeks of mild weather since then, bees flying every few days during this time. I saw them working on rotten apples and gathering water. I had to close the hives on Jan. 30 to prevent robbing; also one colony carried out a few dead young bees. I am wintering my bees on the summer stands, with nothing around the hives; some are in Simplicity and some in the Chautauqua double-walled hives. All are doing well so far. Twelve inches of snow fell in 4 hours to-day, with indications for colder weather.

Successful Wintering.—J. W. Sanders, Le Grand,⊙ Iowa, on March 3, 1887, writes:

Our long cold winter is pretty well gone, and at this time, from the reports I get, bees seem to be wintering finely. I have not heard of any signs of bee-diarrhea yet. I put 61 colonies into the cellar, and with one or two exceptions all seem to be doing well; still the next four weeks may make a change. I have kept the temperature of the cellar, by close watching, from 38° to 46°. I believe the great problem in successful wintering is plenty of young bees in the fall; plenty of good honey in store; see that all are prepared late in the season for winter; and a good cellar for wintering, where the temperature is easily kept above 40°, and well supplied with pure air.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. Not much call for extracted, and very little for comb.

BEESWAX.—25c. R. A. BURNETT,
Feb. 21. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4½c., and comb at 8@12c. per lb.

BEESWAX.—19@21c.
Feb. 9. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Feb. 11. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Few sales are reported. Best white comb, 12½c.; Fall comb honey, 10@11c. Extracted is offered for 6@8c.

BEESWAX.—Firm at 23c.
Feb. 11. M. H. HUNT., Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C.F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, in 1-lb. sections, sells at 13c.; second quality white, 12c.: dark 1-lbs., 9@10c.: white 2-lbs., 11@12c. Extracted, 8c. Market dull.

BEESWAX.—25c.
Feb. 15. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 12@12½c.; 2-lbs., 11@12c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 5@5½c.

BEESWAX.—25c.
Jan. 19. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.
Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

* * *

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

* * *

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* * *

There is no Mistake in insisting that—as in all other things, so in advertising—the best is the cheapest, no matter what its first cost may be.

* * *

The Western World Guide and Hand Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

ADVERTISEMENTS.

WANTED.—Three live men to work in an Apiary and Nursery.
7Atf. S. I. FREEBORN, Ithaca, Wis.

FOR SALE CHEAP, for cash, 1 to 100 Colonies ; Bees by the pound, of either Italian or Albino Bees, and QUEENS. – Address, OTTO KLEINOW, (Opp. Ft. Wayne Gate), Detroit, Mich.
8Etf

DON'T GET LEFT !—Nothing extends reputation equal to the brilliant Chromo Bee-Card. See page 77, or address,
J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

FULL Colonies of ITALIAN and HYBRID

BEES (with lots of brood), in 2-story Standard Langstroth Hives, almost given away.

1 to 5 Colonies.. $7 50
6 to 10 " 7 00
10 to 20 " 6 00
} See advertisement in American Bee Journal, numbers for Feb.

Address, **W. T. MADDOX,**
10Etf ALEXANDRIA, LA.

APIARY FOR SALE

HAVING other interests which claim my attention, I wish to sell my apiary of 138 Colonies, in the village of **Winnebago, Ills.**—7 miles from **Rockford,** and 100 miles west of **Chicago.** The location is first-rate, and no other apiary near. The past season, 82 colonies increased to 138, and gave 7,000 lbs. surplus—nearly all white clover, and 4 5 of it comb ; 2,300 lbs. sold at home for cash without peddling. Langstroth Hives, with good Combs, Tiering-up Section-Cases, Division-Boards and Feeders, Extractor, and good Honey-House. (Rented place of one acre.)

If not disposed of before April, it will be sold at auction.

C. M. HOLLINGSWORTH,
6E3t WINNEBAGO, ILLS.

ENGLISH OPINION.

HOW the genuine Bingham Bee-Smoker is looked upon where it is not patented and any one can make and use and sell just such Smokers as they please or think best:

Thomas Wm. Cowan, Editor of the Weekly "British Bee Journal," after devoting **five full columns with nine cuts** illustrative of said Bingham Bee-Smoker—space that would have cost us more than $100—says : "A real Bingham Bee-Smoker will send a **greater volume of smoke,** and that **to a greater distance,** than **any other Smoker we know.** We have had such a Smoker **in use since 1878,** and although we have been obliged to renew the barrel, which became worn through from constant use, nothing has been done to the bellows, which is just **as good as it was on the first day** we had it. A Smoker like this will burn almost any sort of fuel that will produce smoke when smouldering; we use old rags, brown paper or sacking ; but peat, decayed wood, or even ordinary fire-wood will do when it is kindled."

For the lowest and highest priced Smokers—and the only ones that last and do not go out—sold in the United States, send card for Circular, to

BINGHAM & HETHERINGTON,
10Ctf ABRONIA, Allegan Co., MICH.

A SAMPLE COPY

Of the **AMERICAN APICULTURIST** will be sent free to all who apply.

Address, **HENRY ALLEY,** Wenham, Mass.
10Atf

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms ; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison ; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse ; a valuable collection of recipes, and much valuable information,

Price 25 cents—in English or German.

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BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.

M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
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SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
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DON'T BUY QUEENS,

HIVES, SECTIONS or SUPPLIES

before you send for my Catalogue and Price-List. Address,

J. P. H. BROWN,
8E6t AUGUSTA, GEORGIA.

DR. FOOTE'S

HAND-BOOK OF HEALTH,

HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the Utmost Importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping Bathing, Working, etc.

IT TELLS ABOUT

What to Eat,
How to Eat it,
Things to Do,
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Perils of Summer,
How to Breathe,
Overheating Houses,
Ventilation,
Influence of Plants,
Occupation for Invalids,
Superfluous Hair,
Restoring the Drowned,
Preventing Near-Sightedness,
Parasites of the Skin,
Bathing—Best way,
Lungs & Lung Diseases,
How to Avoid them,
Clothing—what to Wear,
How much to Wear
Contagious Diseases,
How to Avoid them,
Exercise,
Care of Teeth,
After-Dinner Naps,
Headache, cause & cure,
Malarial Affections,
Croup—to Prevent.

IT TELLS HOW TO CURE

Black Eyes, Boils, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Diarrhœa, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts Whooping Cough, Worms in Children.

Price only **25** Cents. Sent by Mail, post-paid.

THOS. G. NEWMAN & SON,
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BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives ; for sale at $8.00 per Colony. **Z. A. CLARK,**
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Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive,** the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

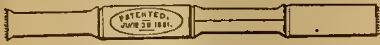
all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

A NEW HONEY-EXTRACTOR.

THE SIMPLEST and cheapest in the market. No special constructed can or vessel required. Any common molasses or whisky barrel or other suitable vessel at hand will do. It extracts as clean and fast as any other two-frame extractor. It is suitable for American or Langstroth frames up to 13x20. It weighs only 8 lbs. ready for shipment. Price in the flat, $2.50 ; set up, $2.75. State right to make, use and sell, $1.00. Date of patent Feb. 9, 1886. Send for circulars to the inventor and manufactor. J. C. MELCHER.
10A6t O'QUINN, Fayette Co., TEXAS.

THE "BOSS" ONE-PIECE

SECTIONS.


PATENTED. JUNE 28 1881.

Patented June 28, 1881.

WHILE attending the North American Bee-Keepers' Convention at Indianapolis, we learned there was a rumor afloat that the Patent on the ONE-PIECE SECTION had been set aside—circulated by unprincipled parties, to mislead bee-keepers. We would say in regard to this, that such is not the case. It is now before the U. S. Supreme Court, at Washington, and will probably be decided before a great while, when we will notify all through the Bee Journal. Until then pay no attention to rumors.

Before ordering write us for prices. We will furnish you Sections as cheap as the cheapest. Let us hear from you before you order. Address,

J. FORNCROOK & CO.,
1Atf Watertown, Wis., Nov. 1, 1886.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
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P.S.—Send 10c. for Practical Hints to Bee-Keepers

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Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.
Atf **J. VANDERVORT, Laceyville, Pa.**

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column

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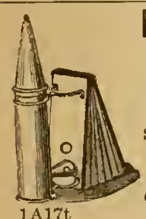

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of all kinds kept in stock, at low rates.

THE QUINBY SMOKER a specialty.

Send for Illustrated Price-List

W. E. CLARK,
Successor to L. C. Root,
Oriskany, Oneida Co., N. Y.
1A17t

HOW TO RAISE COMB HONEY.

Price 5 cents. You need this pamphlet, and my free bee and supply circular. 7Atf.

OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

BEESWAX.

We pay **23c.** per lb., delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

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BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

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FOR HIVES, SECTIONS, &c.

I AM now prepared to supply dealers and others with

Hives, Sections, Shipping-Crates, Supers, etc.,

of all kinds. I make a specialty of LANGSTROTH AND MODEST HIVES. Correspondence with supply dealers solicited. My Sections are all made from Poplar. Address,

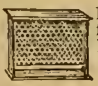
GEORGE TAYLOR,
11Atf DUNDEE, Kane Co., ILLS.

WEAK MEN MADE STRONG

All men seeking Health, Strength and Energy should avoid drugging the stomach and send for **Prof. MARSTON'S TREATISE,** which is published especially in the interests of those who are **Weak, Nervous** and **Debilitated.** If you have been drugged and humbugged send at once for this **FREE BOOK,** Replete with information of value to young and old men.

THE MARSTON CO. 19 Park Place, New York.
46A17t

Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

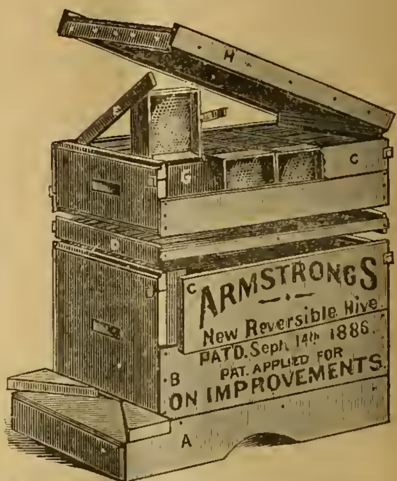
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

NON-SWARMING BEE-HIVES.

Most practical for surplus honey in the World. Excellent for rearing Queens; also for Increase, when desired. Send 2 cents for Circulars.

VICTOR W. CLOUGH, GENESEO, ILLS.
51A12t

ARMSTRONG'S



New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. March 16, 1887. No. 11.

Rev. Henry Ward Beecher is dead. That he was one of the greatest men of the age, is conceded alike by friends and foes.

The Danish Bee Journal for the year 1886 is received from Mr. Alfred Rusbridge, of Chichister, England, author of "Bee-Keeping; plain and practical; how to make it pay, etc." Articles from this gentleman are translated and run all through the year. It is edited by Hans Ersler, and published at Kalundsborg, Denmark.

The Bees have Wintered Well, is the general remark of all apiarists. As we are promised an early spring, if the bees have no serious "set-backs" the crop of honey will be good, and plans will have to be made to place it upon the market in the most desirable manner, and to maintain living prices.

In Florida, says H. G. Burnett, in the *Dispatch*, bees are swarming, and bringing in honey rapidly from the abundant bloom of the penny-royal, so that extracting is the order of the day. The hives contain about an average of 50 pounds of honey, most of which is sealed over. Prospects are good for an average of 75 to 100 pounds per colony of penny-royal honey. By the time that crop is gathered, the saw-palmetto will open up, and the bees will be kept busy at that until June.

Carelessness in writing seems to be so very prevalent that we desire to call attention to it before another season's business commences. We have to-day (Friday) received a postal card, without name, post-office, county, State, or date, complaining because the writer received no reply to one before sent—which was probably in the same condition. To all let us say *be sure* to write your name plainly, with postoffice, county and State before sending an order to any for goods.

Another Triumph for the Union.—McCormick's Bill to "wipe apiculture out of Michigan," as Prof. Cook calls it, was tabled on his own motion on the 4th inst. In addition to the remonstrances from officers of the Michigan Bee-Keepers' Associations, and apiarists generally, we sent him marked copies of the BEE JOURNAL. Prof. Cook, Vice-President of the Bee-Keepers' Union, used his influence, and Mr. Heddon, at Prof. Cook's request, sent him an official letter, as President of the Union, and here is Mr. McCormick's reply:

> JAMES HEDDON, *Pres. Bee-Keepers' Union*—DEAR SIR:—Yours, in regard to House Bill 89, is at hand, and in reply I will say that the Bill came up in its regular order, and was, upon my own motion, "laid on the table," and *I shall let it die* there! I do not wish to injure the bee-interests, or drive them out of the State. Yours, etc.,
>
> JAMES W. MCCORMICK.
>
> Lansing, Mich., March 8, 1887.

Mr. Heddon says: "In this we again see the use of organization. I think it quite likely that Mr. McCormick introduced the Bill without giving it due thought, to please some disgruntled constituent, and now, upon re-consideration, is as glad to let it die as any of us."

Here we have another example of the benefits to be derived from organization and combined effort. The members of the Bee-Keepers' Union have many triumphs to *be* proud over, and this adds another laurel.

Bingham's Vinegar Test.—So many have inquired how to make the vinegar test, mentioned on page 118, that we here give Mr. Bingham's method, which will answer all the questions at once:

> Take of clean yellow beeswax, one-half ounce, and two ordinary shot, ⅛ inch in diameter. Warm the wax until it is soft, and put the two "shot" into the centre of the piece of wax, as nearly as convenient. Make the wax into a ball like a marble. Its upper surface will rise to the surface of the vinegar or water containing one pound of honey per gallon—just the amount needed for the best vinegar.

The United States Senate reinstated the special clause for apiculture in the Agricultural Appropriation Bill and passed it, but in conference, in the hurry of the last days of the 49th Congress, the House threw it out again, so apiculture will have to get along again on "short rations" for another year. This is very unfortunate, when so much ought to be done, under Governmental control, for our pursuit during the coming year.

Deaths.—We were made cognizant last month of the loss, by death, of the wives of both Mr. Ira Barber and Mr. F. C. Benedict, two well-known apiarists of this State. They have our heartfelt sympathy. Another who joined the "Great Ranks" was Mr. A. T. Blauvelt, of Blauveltville, N. Y., a veteran bee-keeper and breeder of very fine bees.—*Bee-Keepers' Magazine.*

James Harper, of Mason, Mich., who has been a subscriber to the AMERICAN BEE JOURNAL for 20 years, has just passed to the other shore. His 48 colonies of bees packed in chaff are wintering finely—having recently had a good flight. This information comes from his son.

More Lying.—C. W. McKown, of Knox Co., Ills., has sent to us the Knox County *Republican*, with an article marked, copied from the New York *Mail and Express*. In it some lying penny-a-liner has drawn upon his imagination for writing a "fancy article," which damages the pursuit of bee-keeping. It is headed, "Honey and Comb to Order," and the first paragraph reads thus:

> Not only has American enterprise succeeded in manufacturing a honey-comb to save the bees the trouble of furnishing a receptacle for their sweet store, but it even threatens to do away with the services of the industrious little bee, by supplying the honey also. More than one variety of manufactured honey is at present sold in the market, as being the genuine product of the little busy bee. Some of it comes in the form of strained and clarified honey put up in glass jars. More of it is supplied in the comb in small boxes with glass on either side, through which it may be seen, looking as natural as if it had been stolen from the hive.

Such irresponsible falsifying is the more dangerous and despicable, because it will travel by lightning, and be wafted on every breeze—while the truth, as a correction, will limp along like a cripple, and be kicked by every passing coward.

The *wily* part played by the originator of that so-called "scientific pleasantry," will cause his name to be execrated by honest persons all the World over. And if he should live a thousand years, and devote all his remaining life to atone for the damages he has already done to an honest pursuit, he would die an infinite debtor to it; for the multiplying tongue of slander and falsehood never can be controlled or made to cease its villainous calumnies! His name will

> ...."Go down
> To the vile dust from whence he sprung,
> Unwept, unhonored, and unsung."

In the Reading matter of their catalogue for 1887, Messrs. J. W. Powell & Son, of Mankato, Minn., remark as follows:

> To all who wish to be in the front rank in the art of bee-keeping, we recommend the AMERICAN BEE JOURNAL, published weekly for one dollar a year, by Thos. G. Newman & Son, 923 and 925 West Madison Street, Chicago, Ills. The above-named paper is a live, wide-awake journal, and will make a live bee-keeper of any one who will take and read it.

As this was unsolicited and totally unexpected, it is the more valued. Thanks.

Catalogues for 1887.—Those on our desk are from

Thomas B. Blow, Welwyn, Herts, England—60 pages—Bees, Hives, and Honey.

E. T. Flanagan, Belleville, Ills.—8 pages—Bees and Supplies.

Reynolds Bros., Williamsburg, Ind.—16 pages—Bees and Supplies.

E. R. Pierson, Tarrytown, N. Y.—96 pages—Seeds and Plants.

J. M. Hambaugh, Spring, Ills.—10 pages—Apiarian Supplies.

S. D. McLean, Columbia, Tenn.—2 pages—Bees.

E. M. Yeomans, Andover, Conn.—4 pages—Bees.

J. W. Eckman, Richmond, Tex.—4 pages—Bees and Poultry.

There is no Mistake in insisting that—as in all other things, so in advertising—the best is the cheapest, no matter what its first cost may be.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Packages for Extracted Honey.

Query, No. 388.—What are the best packages to put up honey in for retail, before it is granulsted?—J. G.

Glass-jars, tumblers, or small cans. —J. P. H. BROWN.

For packages (less than a gallon), glass.—JAMES HEDDON.

Probably pint and quart fruit-cans made of flint glass.—G.M.DOOLITTLE.

If the honey is to be allowed to granulate, I know of nothing better than tin pails.—W. Z. HUTCHINSON.

A jar belonging to the consumer. The second best is tumblers and raised-cover pails. The jar usually holds the most, and is emptied soonest. —C. W. DAYTON.

Different markets require different packages, and you must find out by experiment for your own market.—C. C. MILLER.

It depends upon your trade. The low prices make large packages more profitable than heretofore. Hence we would advise small kegs and cans holding from 10 to 50 pounds, although we use 5-pound cans to a very good advantage.—DADANT & SON.

I have used the Muth glass jars, 1 and 2 pounds; the objection is that they cost too much. Tin packages are cheaper, but do not sell the honey like the glass jars do. Glass packages for the retail trade are best, if we can get them cheap enough.—G. W. DEMAREE.

It will depend upon your market. Find out what the people want, then supply that want. In this locality small glass packages sell best. If you can sell granulated honey in your market, I would advise putting it in tin packages.—H. D. CUTTING.

It depends entirely upon the market. Some useful vessel of small size, which can be tightly sealed, like tin pails or jelly cups, or fruit cans are the best. Some markets prefer Muth jars, but they are of no use after the honey is out.—A. J. COOK.

The best package to put up liquid honey for retail is a glass package that may afterwards be used for other purposes. I saw recently a new sealing cap for glass jars of foreign design, introduced by Mr. James A. Abbott, of London, that must prove very valuable.—G. L. TINKER.

It will depend entirely upon the taste of purchasers. Ascertain the wants and requirements of the market, and follow them. The pound package is usually the most salable, as it is compact in form, of convenient size for use, and what is of some consequence, reasonable in price. The style of package will depend upon the taste of customers.—J. E. POND.

Glass jars, tin pails or kegs, according to the requirements of your market.—THE EDITOR.

The Best Bees for Comb-Building.

Query, No. 389.—1.—What race or strain of bees make the thinnest cell-walls.or use the least wax in comb building, and what use the most? 2. Would you recommend a strain that built heavy combs if you had to ship honey some distance to market?—G.

I think there is little difference. The blacks use the most wax in capping.—G. M. DOOLITTLE.

I do not know. Some think that black bees make rather thicker caps. Surely their combs are whiter.—A. J. COOK.

I think the claims of this or that variety of the honey-bee for making thin cell-walls is more imaginary than real. All these seeming differences depend more upon the variety and upon the amount of the honey-flow.—J. P. H. BROWN.

I believe the Syrians have the thinnest cappings over the honey, and the blacks the thickest. I would recommend the latter simply for the sake of appearance. In regard to the thickness of the cell-walls I cannot say.—W. Z. HUTCHINSON.

The yellow race of bees use the minimum amount of wax in constructing the combs and capping the honey. The black race uses no more wax in the side-walls than do the yellow bees, but they make it up by piling on the capping; this gives them the reputation for "white honey."—G. W. DEMAREE.

We think the weight of the cell-wall depends especially upon the temperature of the hive, not on the race. Those who tell you that one race builds heavier cells, are not sure of it, they only think so.—DADANT & SON.

Who can tell? Considerable guessing has been done on this subject, but the difference is so slight that it would require a microscopic test to fully determine it. Get the best honey-bees you can find, and do not stop to bother much about the slight difference that might be found in thickness of comb.—J. E. POND.

German bees make the brightest and thinnest combs. They use less wax and make straighter and smoother work. The yellow bees use more wax, make more uneven and darker combs, and while such combs may bear transportation better, they cost more, and do not sell as readily, and any combs can be transported safely if properly crated.—JAMES HEDDON.

1. The Syrians make the most delicate combs. The Carniolans and blacks also make light combs. The Italians use more wax in comb building than any other race. 2. The majority of people prefer combs made so delicate that in eating the wax is hardly detected. I have seen grades of comb honey that could not be eaten without getting the mouth full of wax. It will no doubt pay the best in the end to produce the lightest combs even if we have to ship far to market.—G. L. TINKER.

The real difference is too slight for a choice.—THE EDITOR.

Doubling up Late Swarms.

Query, No. 390.—In doubling up late swsrms or weak colonies, do you think it best to kill the queen of the last bees you put into the hive, or let the bees do it themselves? I suppose we hive many queenless colonies.—H. C. G.

Kill the poorest queen.—DADANT & SON.

I never put in but one queen. I prefer to select.—A. J. COOK.

I think I would let the bees do it, unless there was a choice of queens.—C. C. MILLER.

If colonies are to be united in the fall, I should prefer that one had been queenless a few days.—W. Z. HUTCHINSON.

Not unless there is a difference in favor of the former. If such exists, kill the poorer one.—G.M.DOOLITTLE.

Always save and cage the best queen, and destroy the others.—J. P. H. BROWN.

Much depends upon the time of the year and the honey flow. When the bees were gathering rapidly I should let them do the killing.—JAS.HEDDON.

In case of weak colonies I think it best to kill all queens but one, and cage that one between the combs for 48 hours. With swarms having young queens, leave it to the "survival of the fittest." When the swarms have old queens I would cage one for 24 or 48 hours.—C. W. DAYTON.

If the colony receiving the bees has a good queen, I should take away the queen from the other.—H.D.CUTTING.

I always destroy the poorer queen, and then I know that the best one is saved; otherwise it would not be known which was left, as one would be as apt to be killed by the bees as the other, and there is no certainty that both even would not be destroyed by them.—J. E. POND.

I prefer to have all the colonies to be united but one, queenless for at least three days before the work of uniting is done. It is not safe as a general rule, to unite colonies when both or all have queens. Sometimes they may be dumped together, queens and all, without serious consequences, but it is a careless way of proceeding. —G. W. DEMAREE.

It is best in all cases in doubling up colonies to kill one queen nine days before doubling up. Then cut out queen-cells and unite. Any other plan will be attended by some loss of bees by fighting, and necessitates the caging of one of the queens, the other to be killed.—G. L. TINKER.

Kill the poorest queen some time previously; and when uniting, cage the other queen.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest: O~ southeast; and ♀ southwest of the center of the State mentioned.

The Jolly Honey-Bee.

J. F. LATHAM.

Near a sunny wood-side, on a sloping spot,
By a purling streamlet, is my cozy cot;
Where content I labor, joyous, lithe and free,
As will a busy, jolly honey-bee.

Sporting in the spring time on the balmy air;
Watching at the portal with a jealous care;
Storing up the pollen from the willow-tree,
As will a busy, jolly honey-bee.

Ere the welcome sunbeams usher in the day,
Or the pearly dew-drops catch the glowing ray;
Humming in the meadow, buzzing o'er the lea,
As will a busy, jolly honey-bee.

Nursing up the broodlings, cleaning out the room,
Cooking down the honey, from the maple bloom;
Dragging out the cripples with a Spartan glee,
As will a busy, jolly honey-bee.

Scouting through the bower, searching in the dell
For the sparkling nectar in the flow'rets bell;
Basking in the sunshine merrily and free,
As will a busy, jolly honey-bee.

When the shades of eve lengthen on the plain,
Or the dark'ning heavens threaten coming rain,
Hie my journey homeward, from the storm to flee,
As will a laden, jolly honey-bee.

Rushing from the portal, circling in the air,
Pitching in the tree-top, clust'ring—anywhere;
Closing in a murmur, floating from the sea,
As will a roving, jolly honey-bee.

Storing through the summer with a restless zeal
Treasure for my master, 'neath the pearly seal—
With unerring forethought—winter stores for me,
As a provident, jolly honey-bee.

Bearing home propolis, from the oozing cones;
Closing up the op'nings, driving out the drones—
Sipping from the aster, in the sunny lea,
As will a busy, jolly honey-bee.

When the frost of autumn, creeping on amain,
Blasts the Solidagos on the fading plain;
In my waxen chamber hugging close and snug,
As will a prudent, jolly honey-"bug."

Through the blasts of winter, in a long repose,
Till returning spring-sun melts away the snows;
And the crimson verdure on the maple tree,
Prompts to her duties—a thankful honey-bee.

Cumberland, Me.

For the American Bee Journal.

Winter Deportment of Bees.

J. W. BAYARD.

Misfortunes or accidents often develop important truths, that otherwise might remain a mystery for ages. Some 16 years ago, at night thieves carried from my apiary an extra strong and well provisioned colony of bees, which they wrecked in an open field a short distance away, about 6 days having elapsed before I discovered the theft. In the meantime, snow had fallen to a depth of 10 inches, and the temperature was 15° below zero, that being exceptionally cold for this latitude. On reaching the hive and lifting it from the snow, the bees responded with a "roar," as unexpected as a clap of thunder would have been then. In attempting to adjust some of the broken combs, the bees darted at me and stung me severely on the hands, while others took wing outside, discharging a dark-colored feces on the snow. This was a strange experience under the circumstances, as I expected that all the bees had perished, or at least would be in a torpid condition.

I at once placed them in a well ventilated, dry cellar, where the temperature never falls below 40°, or rises above 50°. In the meantime I kept watch of their condition with some apprehension as to their outcome. For a time a slight rap with the knuckles on the hive would cause a lively response, when later on they grew fainter and fainter, and at the end of a month every bee in the hive was dead, superinduced by exposure to cold, over-eating and long confinement, resulting in diarrhea in its most odious form.

The above served as a pointer to further investigations among my 40 other colonies wintering on the summer stands. I found on visiting them day or night, with the temperature below zero, that a never-ending "roar" or song would issue from the bees within, indicating great activity and vigorous respiration within the cluster, in order to counteract the encroachments of their most deadly enemy—cold and frost. When a day arrived for a passable flight, all took wing that were able, whilst others, too sick, crawled out on the snow to die. Thus despoiled of their numbers to such a degree when spring finally came I was minus what had been 20 good colonies, with all the other 20 more or less crippled.

Fortunately this condition of things only obtains in exceptionally cold winters, with long-continued depression of temperature. In handling and caring for bees for over 30 years, I hazard nothing in saying that with the above or similar conditions, the same results will be realized in all future time. That a remedy is at hand is also true. It lies in the securing the conditions of temperature that require of bees the least consumption of food of whatever kind, as well as the minimum amount of respiration and exertion, simply sufficient to counteract the encroachments of cold in our various localities of the North.

For in-door wintering of bees, all late experiments point to 45° as the central idea among advanced apiarists—where bees can ply their natural vocations, consume the least amount of stores, and suffer the minimum of loss. The same will apply to out-door wintering, only the difference of being unable to control the temperature in a degree, by our various methods of packing, and the confusion of ideas on the subject. So, for the present we must take it as it comes.

In close connection with this problem of successful wintering, comes the oft-mooted and much discussed question of hibernation. The very hidden and peculiar condition of a colony of bees during winter, has given rise to a multitude of theories, much speculation, and not a little guess-work. Rev. W. F. Clarke has long since settled the question affirmatively, from his stand-point; Prof. Cook demurs in his scientific and conservative way; whilst Mr. Demaree and Dr. Tinker have advanced sufficiently to call for new light on the subject, if any shall be forthcoming. Allow *me* to place this declaration on record: While my investigations may all be superficial, and my deductions all wrong, I do most emphatically deny that bees do ever hibernate, at any time or under any circumstances, from the day a colony first enters a hive until the last bee makes its final exit!

The trouble with apiarists in the past in regard to this question, is that we have been resting the case on theory alone, in preference to getting down to bottom facts. No one, so far as I know, has yet been able to bring to view (in an optical sense) the exact movements or true status of the inside of a cluster of bees during the winter months; whereas the breaking up of the same for the purposes of scrutiny, would only defeat the object in view, with the risk of destroying the colony. The very quiet appearance of the bees forming the cluster or crust thereof, is entirely immaterial as furnishing any clue to the condition of things within. They are simply doing "picket duty," and are within the radius of the heat of the cluster; can change location at will, and take food to assist in keeping up the temperature of the hive at all times. The idea that bees wake up at regular intervals to eat, and then relapse again into sleep, rests not on the shaddow of foundation in fact. They eat (not all at once) but promiscuously, at all times, and under all circumstances, more or less; just as nature and the surrounding conditions require them to do. The lower the temperature the more they eat; the stronger the respirations, the louder they sing—until finally the "roar" is distinctly perceptible from the entrance of the hive.

We all know about rapping with our knuckles on the hive, in order to get a response from within, as to life or death. If alive, the response comes quickly; but if no response is made, then the bees are dead, and the sooner they are brushed from the combs the better. The question then arises, can bees respond to a rap on their hive, if asleep, or rather, enjoying a "hibernal period?" If they can, then nature in their case has been very gracious, and left other hibernating insects, as well as animals, sadly in the lurch. For I feel very confident that nothing short of an earthquake could produce a kick from a beetle, or a growl from a wood-chuck. Surely, then, there is an apology due somewhere.

As the young professor, who knew that bees only massed on the outside of their hives as the more genial place to sleep in very hot weather, and to prove his theory ran his fingers among the clusters, and collected his pay as he went along, so with the advocates of hibernation. If at any time you become anxious to test your theory, just run your fingers down through a (so-called) hibernating cluster of bees, and collect the same kind of "coin," you having the choice of temperature, anywhere from 50°

above to 20° below zero. This would be entirely practical, and, I have no doubt, satisfactory.

The nearest approach to the inside of a cluster of bees, that I have been able to reach in the winter season, is through a tin tube 2 inches in diameter by 7 inches long, inserted through a 2-inch hole in the honey-board. This reaches completely the top centre of the cluster, and takes in very distinctly its fair proportions of all the intonations of song and sound from below; so by placing the ear to the upper end of the tube, one can more distinctly hear that never-ending song or voice of the bees, as they superintend affairs within the cluster. This tube can be left in all winter, by stopping the upper end to prevent draft, and serve as a means of observation at any time day or night, at any degree of temperature, ranging from 50° above to 20° below zero; thus proving conclusively that the honey-bee never abates one "jot or tittle" of its song of zee, zee, zee! during the lifetime of the colony, at any time or under any circumstances, or at any degree of temperature. Of course where a colony of bees reaches a state of torpidity, through the effects of starvation and cold, an exceptional case is formed, for they are virtually dead.

Athens, Ohio.

For the American Bee Journal.

The Sale of Honey—Middle-Men, etc.

J. E. POND.

What is this "hue and cry" about the middle-men? Are they not as a rule as honest and conscientious as any other class of business men? If not, why are they tolerated for such a lenth of time and suffered to get rich, in our large cities? Is the trouble with them, or are they at all responsible for it? Is it not rather with the producers? Honey-producers, as a class, are not proficient in the matter of conducting general business. This is no discredit to them, as it requires education and experience in a particular line of business to become at all proficient therein.

It seems to me that the trouble lies in the fact that vast quantities of honey are massed "all at once" into some large centre, and the producers of the crop (all anxious to obtain speedy returns therefor), are urging their commission man to sell. He, anxious to please, does sell, and as there are several houses in each large city, competition waxes hot, and low prices necessarily follow. The commission man is not to blame; he is as anxious as any one to obtain good prices, as his percentage is thereby increased, but the pressure on both sides—from the producer to sell, and the glutted state of the market—is so great, fearing that between "Scyllis and Charibda," he may be foundered, he sells with the crowd for the best price he can get.

What is the remedy? Various plans are offered, none of which to my mind are at all practical. The best I have seen is the advice to "create a home market." Not 20 per cent. of the people of the United States use honey at all, and not 10 per cent. to any extent. The people must be educated up to a honey standard, and this can only be done by putting the article within their reach. There are but few things not absolute necessaries that will sell themselves.

It is not over-production, and will not be so long as three-fourths of the people never see a drop of honey from Jan. 1 to Dec. 31. California produces honey at a profit at 5 cents per pound. If it is not over-production, or high cost of producing that is the trouble, can we not well assume that it is lack of education? At any rate let us not charge the middle-men with being swindlers until we find them dishonest; but let us look for the real cause, and see if we do not find it pretty near home.

Foxboro, Mass.

For the American Bee Journal.

Honey Market—Producers' Association

A. D. STOCKING.

As the question of the marketing of honey is attracting a great deal of attention now, I wish to give my experience in this line, and to make a few suggestions which may be of interest to some.

I was located 6 miles from Ligonier, Ind., and was the first to introduce honey in sections in the market there; whenever I went into town I always took a small case of one-pound sections and showed it to all I met. I sold what I could and took orders; I also left some at two good grocery stores on commission. I set the price at which my honey was to be sold, and told them I did not care at what price others sold—this honey was mine, and if they did not sell it they lost nothing; and that when the other was out of the way they could sell mine. I established a high reputation for the quality and style of my honey which I was very careful not to lower, and I have ever since sold my honey at a higher price than any other that was ever brought into the same market. I have never been able to supply the demand, and I never but once went over 6 miles from home with honey, and never asked any one what they would give for honey. I had a good trade amongst the farmers who had once kept bees but had lost them; they had become accustomed to a free use of honey. They came to my apiary and generally would take such as I did not think nice enough to put on the market. I have sold as high as 100 pounds to one farmer.

A great deal has been said against farmers and others keeping bees, but I have found that those who have kept a few bees and have become accustomed to the free use of honey, and then lost their bees, have proved to be the best customers; and I believe that any plan used to bring the mass of the people to become acquainted with the use of honey, will greatly extend the market. But some may say that I produce but a small amount of honey, and need not be troubled for a market. I grant that I am but a small bee-keeper, yet the second season I sold over 1,600 pounds of honey, and those who have a much larger amount must make a stronger effort to increase their market; I believe a great deal can be done by going amongst the farmers.

Last season there were several bee-keepers in the vicinity of my market. I visited all that were likely to have honey to sell; I set a price for honey, and they all agreed to sell for no less, and they did not; yet there was not enough to supply the demand, and a good deal was brought in from a distance and sold at a lower price. Much might be accomplished by producers taking this course in their own vicinity.

I believe that much good might be accomplished by a honey producers' association for the bee-keepers of the country, by ascertaining the amount of honey likely to be put upon the market, the amount produced in the different parts of the country, the prospects of the demand, the prices it would be likely to bring, and the publication of the same, But to establish a uniform price for honey would be impossible, for the reason that the supply may be large in one locality, and the price low; in another part of the country the supply may be short, and the prices high; and shipping honey from one locality to the other will be accompanied with too much expense and loss.

Again it would be impossible to unite the majority of bee-keepers in such an association, and if it could be done it would be accompanied with so much expense as to make it impracticable, as it would be a heavy tax upon the honey-producers.

An effort has several times been made to obtain reports of the prospects of the supply of honey in different parts of the country, through the district and county associations; but they have always failed. The associations referred to by the different correspondents are all organized by capitalists, and none of them control but a small portion of the products of the dairy, etc.; and I apprehend there are but few capitalists among bee-keepers.

It would be much more profitable, I think, to drop the discussion of this question and devote our efforts to the home markets and the reduction of the cost of production. Much more might be accomplished by one or more prominent bee-keepers in each township, in seeing every bee keeper in his own township and uniting them all in a township organization for their own protection and benefit. Let them establish a price for their honey, and work in unison with those of adjoining townships to sustain uniform prices and work up the honey market amongst the farmers and in the towns in their vicinity, and, if necessary, buy up all honey that would be likely to injure their markets. Such associations could report to, and work in unison with their county or district associations. What honey is sold in the towns would be left on commission with good, wide-awake grocers, the association establishing the price at which it is to be sold; being careful to establish and maintain a high reputation for the quality and purity of their honey. Much more might be accomplished in this way than by any producers' association, and thus the problem of the honey market would be solved.

Now is the time to work up such organizations and prepare for the coming season's operations; it can be done at little expense, and would result in great good to all.

Almena, ♀ Mich.

For the American Bee Journal.

U. S. Honey-Producers' Association.

J. M. HAMBAUGH.

To organize a controlling per cent. of the honey-producers of the United States, and thereby bring them under the controlling influence of the association, is a task not easily accomplished. Can the North, the South, the East and the West be brought together under one bond of brotherhood, so that there will be no infringing of rights, one upon the other, in the financial transactions of the entire honey traffic of the United States? Can our oganization be so strong that we can successfully "bull" and "bear" against the laws of supply and demand?

We will suppose for argument's sake, that we are now organized, and have proclaimed to the world that the prices on our product shall no longer be trailed in the dust, and consumers must pay us 15 cents a pound for extracted honey, and 25 cents per pound for comb honey, or go without it; what does any one think would be the result? I believe the mass of the consumers would argue that they can obtain granulated sugar at 15 pounds for a dollar, being equivalent to less than 7 cents per pound; from this they will say they can make syrup costing less than 6 cents per pound; hence the folly of paying 15 cents per pound for honey when they can get a fair article of syrup for 6 cents per pound. Sorghum molasses can be bought from 40 to 60 cents per gallon, and the larger per cent. of the consumers will live on sorghum at those figures rather than to pay at the rate of $1.65 per gallon for extracted honey.

Can any tell how this state of affairs can be benefited by an association of honey-producers? We might be able to raise a "corner" on our product, but at the present low rates of other sweets, it would eventually succumb, and at last be governed by the laws governing the supply and demand.

To me, there appears to be but one remedy, and one road out of the mire, and that is expressed in this short sentence: *Increase the consumption of honey!*

Do away with commission men entirely, and sell only to the retail dealer and the consumer. Let honey seek its level along with other products of man's labor, and when we cannot produce it at the prices the times and circumstances justify, let us step out and surrender to those who can. We should endeavor to increase the demand by giving the consumer something to "tickle his taste," and by our honest, square dealings, let him know that he can rely upon our word, and feel that he gets value received for his money.

We should endeavor to maintain good prices by placing a superior article upon the market, put up in such shapes as will attract attention, and suit the convenience of the purchaser; but until the farmers, cane and sugar producers, wool-growers, etc., effect a "corner" on their products, I believe it useless for the honey-producers to organize with that end in view; on the other hand, I believe it to be detrimental to their interests. While I believe in organizations to defend our rights, elevate and increase our industry, I do not believe in "corners," monopolies, etc.

Spring,+○ Ills.

For the American Bee Journal.

The Prevention of Increase, etc.

ADEL GRESH.

I have been looking in vain over several of our prominent bee-papers to find some experienced apiarist give his method—or some practical one—whereby increase could be prevented, and yet get the full benefit of work from the bees, in producing comb honey in sections. Nearly all agree that prevention of natural swarming is not practical, but hint or say increase could be practically prevented; but I have the first to see who ventures to give explicit details of how he accomplishes the object. It begins to look to me as if their methods were considered "tricks of the trade" not to be divulged. I know that hiving back into the same hive is not practical with me. Hiving back into a hive whose colony sent off a swarm some days previously, is condemned by good authorities. Uniting swarms or parts of swarms, when swarming at the same time, is of little benefit, unless swarms are small, and, even then the object is only partly attained.

Mr. Simmins' method of preventing the desire to swarm may work in England, but I have my doubts about it succeeding in my apiary. Still I am glad that Mr. Simmins has given his method to the public, as it gives us ground to work and experiment on, and all methods should be given a fair trial, and if each would contribute his theories, or better still, his practice in this direction, together with results, I believe the problem would eventually be effectually solved, for "in the multitude of counselors there is wisdom." Let those who have had any experience on this line report it in the BEE JOURNAL, giving full method, for the benefit of the fraternity in general.

As to legislation, I doubt if any good could be accomplished by it; but I think much might be done to promote sales of honey, and hold prices at a reasonable figure by united effort.

Weedville, ♂ Pa.

For the American Bee Journal.

Comb Foundation—Foul Brood.

CHAS. H. VAN VECHTEN.

I could not do without foundation at any price. I use it in full sheets in the brood-frames and in the sections. By its use a pound of bees can be built up into a good colony when the bee-keeper has no empty combs; and by putting it into sections in full sheets, it is wonderful to see how the bees build it out, and the amount of honey they store from Alsike clover. My bees averaged 160 pounds of clover honey per colony. I use a chaff hive something like the "Falcon," only the ends have hooks to keep the doors in, a catch to the bottom, and the cover is on hinges with a wooden staple and stick on one corner. When the cover is open the stick holds the cover level, where tools and crates can be piled on. The back is double-walled, and a false bottom is under the hive, both of which are to be packed. The hive takes 8 frames, 10x16½ inches. I wire the frames and use a steel wire for a brace instead of a tin post. The hive has an 8-inch entrance and a 1-inch hole 6 inches above the entrance for free circulation. By putting 2 bushels of chaff on the hive, the bees will winter as well as calves or horses.

In answer to the question whether extracting causes foul brood, I would say that there are quite a number of bee-men in this locality, and some of us have kept bees for 30 years. We work for comb honey in sections, and I never heard of a single case of foul brood here. I should think that revolving the brood in all stages, with such force in extracting, would kill some of it in its first stages; but I notice that Mr. E. France, of Wisconsin, extracts from all the combs, and his bees never had the foul brood. I also read of a farmer who had a lot of bees in box-hives, and they were rotten with foul brood. It seems to be hard to decide.

Victor,+○ N. Y.

For the American Bee Journal.

Best Method of Marketing Honey.

THOS. TRACY.

There seems to be a question as to the best method of market honey. In many of the large cities the wholesale houses have ceased buying honey, going to the commission house to fill their orders, and the retailer only buys from day to day, throwing the carrying all on the producer or market man.

Honey shipped by promiscuous freight to commission men, for them to pay freight, etc., and sell without dictation, is what spoils the market. Have control of the car; load it yourself; ship to yourself; pay your own freight; unload it yourself; deliver it to four or six of the best houses in the city in good condition; set your own price, and hold it as long as you please. The retailer that buys honey for 12 or 13 cents per pound, and sells it for 25 cents per pound is the worst man connected with the business, keeping half or more of the people from buying any, and the rest from using half they want.

Sell your honey to somebody, or buy somebody else's. All should not go to market; ten men with one ton of honey will break down the market more than one man with ten tons. Commission men are a part of the community, and probably about an average; somebody must handle the honey between the producer and the consumer or retailer. I produce a few tons of nice comb honey every year, and will sell it as it comes from the hive for one-half what I should ask for it in a distant city, with curing, crating, shipping, freight, draying, commission, carrying, risk, etc.

Let every man sell as much honey as he can at home, and as many as desire to do so, let them peddle it, and there will yet be hundreds of tons to be marketed. Let us hear no more about the commission men—they are a necessity, and are what we make them.

Nashua, Iowa.

For the American Bee Journal.

Feeding to Stimulate Brood-Rearing.

C. THIELMANN.

A great deal has been written in the bee-periodicals about stimulating bees, but so far as my experience has taught me, stimulative feeding of bees in early spring does more harm than good, and therefore, of late years, I have fed my bees in the fall instead of in the spring, provided they had not plenty of stores to winter on and for the spring. I intend that they shall have enough food the middle part of October to last them until May. I let them do their own feeding in the spring, and they will "make their nest" just as it suits them best; also put their stores where it is most convenient for them to use it.

By so doing the cluster is not broken up, no excitement is created by which many of the most vigorous bees are lost in going too far from the hive, getting chilled, and never return; no heat (which is so much needed) is lost, and the colony, if let alone, is progressing faster than we imagine.

I fully agree with Mr. Heddon's idea, given as follows: "The best way to build up weak colonies in the spring (supposing they have plenty of honey and pollen in the hive) is to keep them as warm as possible!"

It is an unquestionable fact that warmth for a weak colony, or any colony, is indispensable for good progress in the spring; the more warmth the better, especially at night, after they are on their summer stands. All stimulative feeding will be in vain, or even is harmful, if the colony is not kept warm, and every unnecessary disturbance or excitement is damaging at any time of the year, but mostly so in the spring; and we cannot feed bees in the spring without creating more or less excitement and disturbance.

Thielmanton, Minn.

For the American Bee Journal.

Marshall Co., Iowa, Convention.

The Marshall County Bee-Keepers' Association met at Marshalltown, Iowa, on Saturday, Jan. 15, 1887. The morning session was spent in a social way, and no doubt the time was well employed.

At 1 p m., the President and Vice-President being absent, Mr. A. Pinkerton was called to the chair. The usual order of business being disposed of, Mr. Pinkerton made a few remarks on the subject of surplus arrangements.

He uses the one and two pound sections, preferring the open-top sections so as to tier them up, by placing empty ones under those just being filled or finished. For his retail trade he prefers the five-pound box, for he finds it about as easy to sell a five-pound box to many of his customers as to sell one and two pound sections. For producing extracted honey he uses the two-story Langstroth hive.

Mr. L. Koeper opened the discussion on spring management of bees. He winters his bees in the cellar, puts them out as soon as the weather permits in the spring, which is generally not until some time in April. This is done in the afternoon. He closes the hive-entrance to suit the colony. In two or three days he examines all, and unites weak colonies, if any are found. He does not keep queens over three years, for a young queen lays the best. By close attention he makes his queens lay to their greatest capacity, so as to have all colonies strong by the time the white clover crop comes. To simulate breeding he feeds liquid honey, which he warms and places in troughs two or three rods from the bee-yard. He puts cut-straw on the honey to prevent their drowning. The feed is put out in the afternoon, and he has never had any trouble with robbing by placing feed out in this way. He also uses rye flour for pollen, and thinks that a little feeding of this kind for two or three weeks, or until the bees begin to store from the fields, is a great help. He feeds inside the hive if the weather does not permit the outside feeding. He examines the hives often, and assists the bees by placing empty combs in the centre of the brood-nest as needed; and as more room is required he enlarges the size of the brood-chamber. If the pollen becomes spoilt he cuts it out, and does not leave the combs in after they become a little old. He said that it is best to have new combs occasionally, for they are more healthy, and the bees will be larger in size.

Mr. Diller said that he does not feed his bees, but when he puts them out he keeps them as warm as possible by covering the hives with cloths or quilts; that is all the spring care he wants his bees to have. He does not manipulate them much, as he believes the disturbance injures them.

A. Pinkerton said that his bees worked while he was disturbing them, and did not care for it. Others present took the same view, that the disturbing or manipulating was no detriment, but an advantage when properly done.

Mr. Koeper stated that he had an extra large colony build up in the way discribed by his spring management; that he did not allow it to swarm, but worked it for honey, and during our good honey harvest of 1886, he took 500 pounds of surplus from it. It was mostly extracted. He has a large-sized hive, so that he extracts from the body of the hive. He extracted every third day. He also had a case of sections on top of the hive. Mr. Koeper is a native of Germany, where he received a good training in apiculture and horticulture. He made the same report to me once before, giving the exact number of pounds, which was a little over 500.

The subjects for discussion at the next meeting are: "Summer management of bees," W. P. Cover; "Honey-plants," L. Koeper; "Surplus arrangements," A. Pinkerton.

The society then adjourned to meet on Saturday, April 16, 1887, at 10:30 a.m., in the Court House at Marshalltown, Iowa. J. W. SANDERS, *Sec.*

For the American Bee Journal.

Open Cider-Mills and Bees.

J. R. ROEBUCK.

I am glad that Mr. J. Lee Anderson has noticed my article on page 9, and partly replied to it on page 42. His opposition to my views proves that the subject is not one-sided so far as we are concerned. The reader will please notice that in my first article I referred to "open cider-mills," and not to "cider-mills" only, as Mr. A. has it. I attempted to show some of the injuries bees sustained by having access to open cider-mills; these he has not denied. Then I asked, what shall be the remedy?

The remedy impliedly proposed by Mr. A. is for an apiarist to "keep his bees on his own premises," and then says that he is "not interested in any cider-mill," but in nearly 100 colonies of bees, but that that does not prevent him from using "reason and common sense." Whom he is quoting as using reason and common-sense I no not know. What is the difference, or who cares who is interested in cider-mills?

This, with me, is not a question as to which we will have, or which shall go to the wall, but how to legislate so as to have the benefit of both cider-mills and apiaries, the former to use up the fruit of the orchard for the benefit of humanity, and the apiary or bees to carry the pollen and fertilize the blossoms of the orchard and fields, and to gather honey from every open flower which would otherwise be wasted. Both can prosper, and should be had side by side. Since Mr. A. has named the familiar characters of "Jones and Smith," and made out a case for comparison, let me use the same for a case that came under my personal observation last September. It is as follows:

Jones owns a home, has nearly 100 colonies of bees, has kept his bees for over 15 years, and of late years made a specialty of giving his undivided time to them during the working season of bees, making a comfortable living from them. Last September his neighbor Smith erected a cider-mill not over 200 yards from Jones' apiary; the mill is of the most improved pattern, having a capacity of 150 to 200 barrels of cider per day. Jones went to Smith saying, "You will ruin my bees." Smith replied, "I do not want to do that; I will run the mill and see." The result was that on the first day a few bees got around the mill, the second day a larger number, and the third day the scene resembled that of half a dozen or more swarms about clustering on the mill, going into the grinder, on the pomace, on the flowing cider, etc. Smith being a good sort of a man concluded that it was too bad, and stopped operating; had he continued, and had "Jones" been Mr. Anderson, the result would have been (at least I think so) that Mr. A's "nearly 100 colonies" would have been ground up, drowned, killed and diseased in a very short time. In this particular case Jones used common sense by offering to help Smith, free of charge, to board and screen up the mill, to which Smith consented, and there was no further trouble, except from the pomace. The workmen at the cider-mill, and the neighbors all agreed that Smith did right, and that if he had not allowed or helped to close his mill, Jones and the community would have had to get their honey from some other source, and that Jones' business would have been ruined. Suppose Smith had kept on (as he might have done) and told Jones to "keep his bees on his own premises," what amount of "common sense" would it have taken to keep the bees at home?

I agree with the Editor of the BEE JOURNAL, that "class legislation is undesirable except in rare cases," but I think that this is one of the "rare cases." I also believe that we ought to be interested in cider-mills, and that every man has a right to build and operate cider-mills, cheese factories, chemical works, dye-factories, powder-mills, etc., but I do not believe (and legislatures have shown by wise laws that *they* do not believe) that these industries should have the right to contaminate the air, and poison pure streams of water to the destruction of health, and the killing of farmers' cattle that by nature have the right to pasture the fields through which such streams flow. Powder-mills are good in their place, but are not allowed in populous cities. All these and many other industries ought to and do exist, but are justly prescribed.

So cider-mills can and ought to interest us enough to want them, but they should be closed and prescribed from doing unnecessary damages to other industries equally as important and honorable. Bees cannot be kept from—*and ought not to be kept from*—occupying the place nature, or a Wise Creator has chosen for them to occupy, any more than one should waste his time in trying to reverse any other law of nature.

Burton City, ♁ Ohio.

* * *

For the American Bee Journal.

Disturbing Bees in Winter, etc.

B. Z. SMITH.

Why is it that so many of our best apiarists claim that noise above a bee-cellar will make no difference with our bees? They say, put them under the kitchen where the children romp and play; while they may winter there, I prefer a cellar separate from anything else.

My bee-cellar has two coats of plastering 4 inches apart, over-head, then one row of brick (as it is a brick cellar under ground), and then the sills of a honey-house, shop, or whatever I care to use it for. The other day, as I wanted to do some work in the shop, I thought it would be best to see if noise would molest the bees. So I quietly slipped into the cellar, after engaging my brother to strike on the floor, and found that the bees, on entering, very quiet, but alas! the very first stroke raised a loud hum, and the longer the noise continued the worse they were, until they began to fly from the hives quite often, about as we have noticed them doing in March, at a very warm time, when they are generally breeding, and very warm weather causes great uneasiness.

I am quite certain that none of the hives touch the wall, as I was very particular about this when placing them in the cellar. I am also very sure that no more noise was made than five or six boys would make when romping in a kitchen over the bees. I have some knowledge of this as I was brought up in a family of six boys. Is it not quite certain that such noise or jarring vibrates the air, walls and everything in close connection? I am led to wonder whether or not nearly all bee-keepers would not prefer a cellar where there would not be any disturbance in the least.

My cellar to-day is at 45°, with some water on the bottom, which is pure, as it comes from a sand vein and passes right out at the tile, which is 8 inches, and is also the ventilator. The entrances of the hives are all wide open, ond the lids are raised about ¼ of an inch. There are 150 colonies in a room about of 1,000 cubic feet, and are surely in fine condition. How they will come out in the spring of course remains a query, but I can say that I have been quite successful for 6 years in wintering in this way, with the exception of the year we had so much of the so-called bark louse honey-dew, when we lost about 30 per cent. of our bees.

I believe in wintering bees on their natural stores, and plenty of it; if sugar syrup is better for them than honey, it surely is better for mankind. Then why produce honey? Of course sugar syrup will be fed to colonies that are scant of stores, when honey is not to be had.

Tuscola,○+ Ills., Feb. 14, 1887.

* * *

For the American Bee Journal.

Tin-Rests in Surplus Cases.

N. N. BETSINGER.

I wish to show the advantages in the use of tin-rests. In a surplus arrangement space is its greatest value, and when it is occupied by wood or taken up with bulky substances to accomplish its object, it is in that proportion deficient. In my experiments in producing comb honey I have found the nearer the sections come to the brood, the sooner they were occupied by the bees; therefore *tin* for section-rests are infallible.

The strengthening of tin-rests is considered as yet imperfect, and, with many, an unsettled question. Where metal separators are used and so adjusted as to come in contact with the tin-rests, they can be very securely fastened by means of soldering, which makes a section support in strength second to none, and yet maintaining the same advantage found in any other more cumbersome section-rest—of admitting the sections longitudinally in a solid line.

There is also another advantage in the tin-rests that cannot be found in any other; that is, where tiering-up is desired, just bee-space can be given between the upper and lower case, and not allow the section supports of the upper case to come in contact with the top of the lower sections, which will, of course, greatly alleviate the difficulty caused by propolis on the sections, and also prevent the union of the two cases. Further, the danger of crushing bees in tiering the cases is greatly lessened, without the necessity of using an extra rim for such a purpose.

Marcellus, ⊙N. Y.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

* * *

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 12.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

Apr. 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Well Satisfied.—A. F. Currier, Du Plain,⊙ Mich., on March 7, 1887, says:

I put my bees into the cellar on Nov. 24, 1886, and took them out on March 2 for a flight. They were happy, and seemed to enjoy the warm sunshine; it did me good to see them. But the best of all was that all but one colony out of the 22 were in good condition. I carried them out in the morning, and back at night. I am well satisfied.

North American Bee-Keepers's Society.—Aaron Hunt, Gordon,+o Ohio, writes:

I would like to suggest that the next meeting of the North American Bee-Keepers' Society be held during the Fat Stock Show at Chicago next fall. Then the members can get lower rates on all the railroads; at least such was the case here last year. I would like to hear from others in regard to this matter.

Examining Bees, etc.—A. C. W., of Minnesota, ask the following:

1. When is the best time of the day for a novice to examine a colony of bees? 2. Which is preferable, 8 or 10 frame Langstroth hives for producing comb honey?

[1. At about noon.

2. If for top-storing, the 8-frame hive is better, so as to force the bees to store in the sections.—Ed.]

Ethical Principles, the Rights of Property, etc.—James Heddon, Dowagiac,♀ Mich., writes thus:

In reply to Mr. G. M. Alves, I would say that my limited study of common law (and patent law) prepare me to accept the abstract principles as laid down in his last article, on page 154. I am aware that Nature is cold and cruel; that she appreciates no difference between justice and piracy; that the great law of "the survival of the fittest," by which the hawk must survive upon the flesh and blood of smaller birds (whose agony he seems to enjoy, as with beak and claw he tears them in pieces), or perish for want of food, is shocking to the moral ethics of civilized man. I know that property right of land (which Henry George says is not right at all) originated as Mr. Alves says, but for all this it requires no delicacy on my part to refrain from burning the wood my neighbor has chopped, or the coal he has dug; nor is he unjustly or unwisely "selfish" in asking me to allow him alone to enjoy the results of his labor until I exchange with him an equal result of my labor.

Transferring Bees, Planting Trees, etc—A. Vought, Illawara,♂ La., writes:

I have bought some log "gums" with bees in them. I shall transfer the bees by the Heddon process. He says: "Twenty-one days later I drive the remaining bees, etc." 1. Now, I wish to make two or more colonies of one, as they are very strong; must I rear or buy queens, or will they have started queen-cells and hatched a young queen in 21 days? 2. I wish to place a row of trees around my pasture, with a view of using them as posts for a wire-fence in the future. What kind shall I plant? 3. What kind of honey-plants can I raise along ditch-banks and fences, that will not be damaged much by horses tramping upon them in turning while cultivating the crop.

1. Mr. Heddon answers: "They will have a new fertile queen at the time of the second drive. 2 and 3. One acquainted with the climate and soil could not advise you. J. W. Winder, Jackson Pass. Depot, New Orleans, La., or Paul L. Viallon, Bayou Goula, La., would, no doubt, give you the information, if you write to them for it."—Ed.]

Early Spring.—T. T. Phlegar, Pearisburg,♀ Va., on March 3, 1887, writes as follows:

I put into winter quarters 12 colonies of bees, and have lost one on account of its being too weak when winter began. The spring is nearly 20 days earlier this year than last, when the first pollen was brought in on March 20; this spring it is March 2. Last year was too cool and wet here for bees. I think the coming season will be a favorable one.

Bee-Keeping in Texas.—J. N. Colwick, Norse,⊙ Texas, on Feb. 9, 1887, writes:

I commenced bee-keeping in 1882, when I found a swarm in an oak tree, and with the help of my brother we brought it home, after having run away from the stump several times for fear of stings. These bees increased the second season to 4 colonies; one was killed by mice in the winter, and 3 came through and swarmed. I had in "box-gums" 10 colonies when fall came, besides having taken about 200 pounds of comb honey. A carpenter made 3 two-story Simplicity hives for me, to which I transferred 3 of the weakest colonies. In the spring of 1884 I transferred the remaining 7 colonies, and increased all to 18 in 1885, besides extracting about 250 pounds of honey. In the spring of 1886 I purchased 9 colonies, sold 4, and packed 28 for winter. I had to feed them in the forepart of the summer. Bees gathered some honey last fall. I examined one colony Feb. 2, and found about 4 inches square of eggs and a few larvæ; they now have eggs in three combs. They brought pollen from elm on Feb. 2. Do bees weigh the same if starved, as they do when they gather plenty of honey? Or, will a pound of bees contain the same number in a good season as when they find no honey, and have no more in the hive than they will consume?

[The difference would be almost imperceptible, in either case.—Ed.]

May Convention of Bee-Keepers.—R. F. Holtermann, Brantford, Ont., says:

In reference to the proposed convention to be held in Chicago in connection with honey markets, is May not rather late for those who have work to attend to at that time—in fact for all bee-keepers? It should be a success, and I should regret a failure, even in a measure, for any such reason.

[If a convention is to be held this spring, the time and place should be announced at once. If delayed much longer it cannot be held until the fall, and then it might save much expense to hold it the day before or after some other important convention.—Ed.]

My Experience with Bees.—Thos. Ellicott, Fentonville,♂ Mich., on Mar. 5, 1887, says:

I have had fair success keeping bees, although I have met with some losses. Last summer I secured 2,300 pounds of comb honey, and 100 pounds of extracted from 24 colonies, the most of them being very light in the spring. I now have 80 colonies, and I have paid out for the bees about $70 in cash.

Bees Working Hard.—G. B. Cartmell, Jackson,+o Tenn., on March 5, 1887, writes:

My bees have wintered well. I have not lost a colony. I have 23 colonies all strong in bees. They carried in the first pollen on Feb. 10. Peach and plum trees have been in full bloom for a week, and the bees are working hard on them.

Reversible Honey-Boards.—James M. Goodrich, South Frankfort,♂ Mich., writes:

My reversible bottom-board for the Simplicity hive is made thus: The board is 3 inches longer than the hive; there is a rim on three sides of it, ¾ of an inch wider than the bottom-boards are thick, and the same thickness as the body of the hive. The boards reach across the hive, and are the same length as the hive is wide on the inside, and are halved or matched, the rim being nailed to the board, so that it projects ⅜ of an inch on each side of the board nailed to the hive, which rests on the rim, and this leaves a fly-hole ⅜ of an inch in front, the width of the hive, and the entrance-blocks are held as firmly as in the portico hive, and the bottom-board is the same either side up.

Abundance of Bloom.—W. S. Douglass, Lexington,⊙ Tex., March 8, 1887, writes:

My bees have wintered in splendid condition as usual, if supplied with honey; each had from 30 to 40 pounds of nice honey to winter on. On Feb. 1 they began to bring in pollen very fast from the elm, and now wild peach is yielding both honey and pollen; cotton-wood is also yielding pollen. Fruit-trees are in full bloom, so the bees are having all they can do. I have one strong colony that is clustering on the outside in the heat of the day. All of the hives are becoming crowded with bees. I noticed horse-mint springing up by the thousands. The weather is delightful here; some of the farmers have corn large enough to cultivate, while others have just planted theirs. Some people are planting cotton.

Bees and Grapes, etc.—Louis Werner, Edwardsville,♀ Ills., on March 7, 1887, writes:

I have had a little difficulty with a neighbor about bees and grapes. He got up a petition and had all sign it who would, to get me out of the city; but I have worked hard and convinced the City Council that bees do not puncture grapes, so they declared that the bees were my support, and they threw it out, saying that it was only prejudice, and that was all. The party could not give bond for the costs of a suit, so they gave it up. Thus the case is ended so far. Bees have been working on maple and elm since Feb. 27, and they are in fine condition, having plenty of brood and young bees. Bees have wintered nicely, and the prospect for a good year in this locality are quite flattering. I will have drones flying by April 1, and I think there will be early swarming and plenty of white clover this year.

Stop the Extractor.—F. L. Merrick, Waldron,♂ Ills., writes as follows:

I heartily agree with Mr. James Heddon, on page 155, about holding a North American Bee-Keepers' Convention next May; not for the purpose of exhibiting bee-keepers' supplies, or anything of the kind, but to discuss the best methods of producing honey—whether it is best to continue to extract honey. I agree with Mr. Heddon, that we must have a change; that we should produce "gilt-edged comb honey;" and put our extractors aside for a few years at least. So long as extracted honey shall be produced in such quantities as it has been for the past few years, we will be obliged to sell our gilt-edged comb honey for about 12 or 13 cents per pound. But by ceasing to extract honey, we have every reason to believe that we can agree on a price for comb honey that will be remunerative. We may have by all odds the most interesting meeting that ever was held on this continent.

Early Spring Indicated.—B. T. Baldwin, Marion,⊙ Ind., on March 8, 1887, writes:

I began the winter with 94 colonies packed in chaff on the summer stands; all are alive yet and in good condition, except 2 or 3 that are queenless. The maples have commenced to bloom, and the bees gathered their first pollen from that source to-day, which is 10 days earlier than last season, 42 days earlier than in 1885, and 14 days earlier than in 1884. Hence we will have an early spring if it holds out. Do not the best honey years follow late, backward springs, and poor years and failures follow early springs? Can "P. Benson," of Marengo, Ill., tell?

Prospects Favorable in Alabama.—B. B. Toney, Holly Tree,♂ Ala., on March 7, 1887, writes:

I made next to nothing out of my bees last year; I had 70 colonies in the spring, and obtained 25 gallons of honey, all told. They increased to 111 colonies, and were without honey the last of August. I was preparing to feed the 25 gallons of honey to the bees, when I noticed that they were bringing in honey, and in 4 weeks they had from 20 to 50 pounds of honey each, which was of good quality. Till to-day I have lost but 3 colonies, leaving at present 108. The peach-trees are now in bloom, and bees are now doing well. Everything is now favorable for a good crop of honey; last year it was too wet and cool for its secretion. My average per colony was 4 pounds! Now have not I made a better report than did Dr. Miller, on page 44 of the Bee Journal for 1886? I would rather have had a better one to make, but I am glad that it is no worse.

Bees Quiet in the Cellar.—D. E. Hopkins, Indian Ford,♀ Wis., on March 8, 1887, writes:

I put 69 colonies into the cellar on Nov. 25, 1886, and they are all right. They have been very quiet all winter; the temperature has not varied over 4°. The cellar has a ground bottom, and is perfectly dark. I ventilate it with a 4-inch pipe connected with the heating stove above. Also a 4-inch pipe extends through one of the cellar windows, to let in cold air if needed; it has a damper that can be closed when it is too cold. The bee-room is 9x18 feet, and 10 feet high. I use Langstroth hives, and tier them up 4 high, after removing the caps, and leave the full entrance open.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. Not much call for extracted, and very little for comb.

BEESWAX.—25c. R. A. BURNETT,
Feb. 21. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5¼c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

DETROIT.

HONEY.—Best white comb, 10@11c. Supply large and sales are slow.

BEESWAX.—23c.
Mar. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4½c., and comb at 8@12c. per lb.

BEESWAX.—19@21c.
Feb. 9. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Feb. 11. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C.F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.: white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@6c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 3@5c. Demand fair and supply ample.

BEESWAX.—25c.
Mar. 5. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4½c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

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We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

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and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
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Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
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Dzierzon's Bee-Book (cloth)	3 00	2 00
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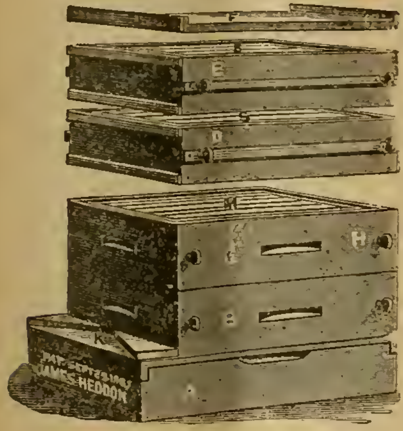

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Your hive is novel, and I propose to try it.
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Please send me descriptive circular of your new hive; the thing seems a novelty to me, and I am anxious to understand it. W. S. CASSON.
Cynthiana, Ky., Jan. 22, 1886.

I have been reading your book and I regard it as a most valuable acquisition to our bee-literature. Your new hive is a wide departure from the old order of things, and I can see much to commend it, in the hands of a master. J. W. PORTER.
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I note with pleasure your improved reversible and interchangeable hive. I consider it THE hive, though my experience in the bee-business has been limited, yet I see in this hive a great revolution in handling bees, making it a pleasure to handle them. S. J. JACKSON,
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When I first saw your new hive, in your home apiary, a year and a half ago, its construction and system of management being so different from any other hive, I was not favorably impressed with it; but in canvassing the subject in my own mind afterward, I thought of the excellent results that had attended the use of your other inventions, and it occurred to me that possibly this might afford me equal satisfaction. The more I studied the hive, the plainer its advantages appeared to me, and I determined to give it a comprehensive trial. After the past season's use of nearly 100 of them, I am prepared to endorse more than you claim for it. In my judgment, it will revolutionize our business, and he who would produce honey at a profit, will not be slow to adopt this hive as soon as he realizes how much it lessens the cost of production. While my own financial interests would be enhanced, were its sale restricted, I am not selfish enough to desire to keep my brother bee-keepers from enjoying so good a thing. Wishing you the ample success that your labors in the cause of bee-culture justly merit, I am cordially and fraternally yours, DWIGHT FURNESS.
Furnessville, Ind., Oct. 10, 1886.

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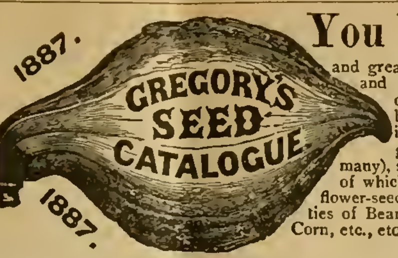

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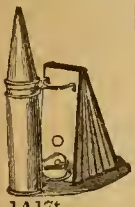

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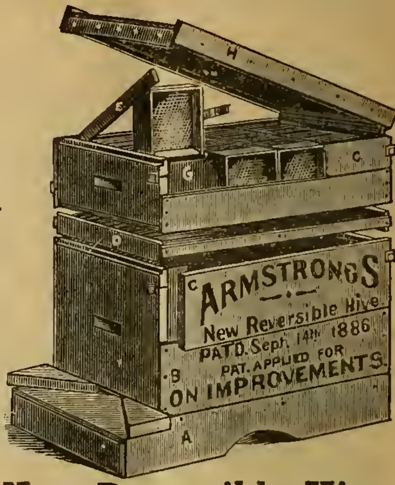

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BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. March 23, 1887. No. 12.

Forward! March! And March is here, blustering some, but it is drying up the mud and letting the ice and snow melt gently under the rays of Old Sol. So far, the bees are doing finely, and everything promises for a good season for both bees and honey.

◆

Shipping Honey to Great Britain was the subject which brought the Ontario Bee-Keepers' Association together at Toronto, on March 16. After much discussion it was decided that the shipping of honey in the future be left to individuals, or that some competent persons should purchase it in Canada and take it under their personal supervision to Europe and sell it there for themselves. The association concluded that it could not undertake the work.

◆

B. Z. Smith, of Douglass County, Ills., has issued a circular on the advantages of Alsike clover, which he is freely distributing among the farmers in his locality, in order to increase honey production. This is very praise-worthy, and shows energy and business-like qualities, which should be practiced by apiarists all over the country. Mr. Smith requested us to get up a Leaflet some weeks ago on this subject, but we were feeling so unwell then that we could not undertake it. Now we have done so, and as it is just the time to sow the seed, let them fly all over the country.

◆

The Outlook in Florida.—Mr. John Y. Detwiler writes thus to the *Dispatch* :

> Mr. Ira D. Barber, of New York, has been here for two weeks, and expressed himself highly satisfied with the condition of the colonies. Mr. B. is a veteran bee-keeper, and is one of the few men who winter their bees successfully. He and his brother keep nearly 500 colonies. His first visit to this place was in December, 1883, and now, since the mangrove has been destroyed, he expresses the opinion that the outlook would not justify much of an expenditure for the production of either comb or extracted honey.

◆

To be Known, a man must keep his name before the people, and let them know where he is, and what he is doing, as well as what he has for sale.

More Lies about Honey.—Mr. T. R. Whinery, of Winona, O., writes to the BEE JOURNAL as follows :

> On page 611 of Johnson's New General Encyclopædia I find the following : "Honey is said to be now much adulterated with glycerine, and even imitated, as a whole, by combining the latter product with other material, and flavoring with appropriate essential oils." Now I would like to know whether it is possible to adulterate honey with glycerine.

It is "possible" to mix glycerine with extracted honey, but it is *not done*, because it is not profitable to do so—and all adulterators look out for *that* ; that is their prime incentive. Glycerine is worth three or four times as much as extracted honey, and you may as well talk about adulterating silver by putting "pure gold" into it, as to think of adulterating honey with glycerine ! !

Since the Wiley *lie* about comb honey was published as a "scientific pleasantry," every editor, author, and correspondent seems to have a "license" to add more *lies* about honey to the large stock already published. They will go so far as to even intimate that honey is made as a whole from glycerine and other ingredients, flavored with essential oils. The fools never stop to think that this "stuff" would cost three or four times as much as the pure, unadulterated, extracted honey could be purchased for ! These fellows lie out of whole cloth when the truth would serve them far better !

◆

Mr E. Sandford writes thus to the editor : "I think you ought to ask for some able article on the question of grocery-men not wanting to sell extracted honey, for fear that it will hurt the sale of their syrup trade. Then let bee-men have it published in their home papers."

This is a question of "business," and we hardly know what more could be *said* to induce grocery-men to push the sale of extracted honey when put up in nice salable packages, than has already been printed in this JOURNAL. If any "able articles" are offered on that subject they will receive our best attention and full endorsement.

◆

A West Virginia Bee-Keeper tells how he out-witted the middle-man of his home town, as follows :

> Last fall I drove into a town, a few miles distant, with a load of honey, and went to the principal dealer in honey and stated my price. Said he : "I can buy just as nice honey as that for 10 cents." "And you retail it for 20 cents, do you?" "Yes, and have no trouble to get it." "Well," said I, "you *will* have trouble in the future." So at the house adjoining his store I commenced selling nice comb honey at 18 cents, and extracted at 12½ cents, or 10 pounds for $1. I visited this town once a week while my honey lasted, selling on each trip an average of 50 pounds of comb honey, and 450 pounds of extracted. It is needless to say that the sale of honey by middle-men in that town was completely ruined.

Well, this is *stale*. It was written for the BEE JOURNAL by J. A. Buchanan, and published on page 106. It is "going the rounds" of the papers without credit, when it should have been credited to this paper.

◆

Mr. James Heddon is now an editor. He has just purchased the Dowagiac *Times*, and his first number is on our desk. It looks well and reads well, and we wish him success in this new field of labor.

Bee-Keeping in Russia, says Ben : Perley Poore in the American *Cultivator*, is carried on to a great extent—the annual product being valued at two and a quarter millions of dollars. The expenditure is chiefly made by the Greek Church, the ceremonies of which require such a large consumption of wax candles as to greatly favor this branch of rural economy in Russia, and preserve it from the decline to which it is exposed in other countries, from the increasing use of stearine, oil, gas and other fluids for illuminating purposes. The rearing of bees is now almost exclusively dependent on the manufacture of candles for religious ceremonies, and on the consumption of honey during Lent, it being then used instead of sugar by the strict observers of the fast. The government encourages this branch of rural industry, as affording to the peasant an extra source of income, and has adopted various measures for the accomplishment of this end.

◆

Another "Find" of Wild Honey is thus mentioned by a correspondent from Utica, Pa., in the New York *Sun*. He says :

> A few days ago James Cousins and S. P. McCracken were going through the woods, when they were surprised to see bees swarming about an old and very tall tree, near the top. Believing that the tree contained a great store of wild honey, the two men set about securing it. Two 25-foot ladders were spliced together and run up the tree, but they fell 25 feet short of reaching the spot. Cleats were then nailed on the trunk of the tree from the top of the last ladder to the hollow place. Standing on the top pair of cleats one of the men chopped a hole in the trunk. A hollow place 10 feet deep and 14 inches in diameter was found. It was packed full of honey. The mass was taken out entire, without breaking the immense comb, and lowered successfully with ropes to the ground. There were over 300 pounds of honey. After securing the honey the bees were hived, and will lay up their next season's store in a modern hive.

Who says that Pennsylvania is not a bee State ? How about combs 10 feet long *vs.* Langstroth frames ! Big story ! Happy Cousins !

◆

Catalogues for 1887.—Those on our desk are from

Aspinwall & Treadwell, Barrytown, N. Y. —38 pages—Bee-Keepers' Supplies.
Frank A. Eaton, Bluffton, O.—1 page—Section-Case and Skeleton Honey-Board.
E. S. Armstrong, Jerseyville, Ills.—36 pages —Reversible and Crown Bee-Hives, and Bee-Keepers' Supplies.
Mrs. J. N. Heater, Columbus, Nebr.—4 pages—Bees, and Bee-Keepers' Supplies.
F. A. Salisbury, Syracuse, N. Y.—28 pages —Apiarian Supplies.
Arthur A. Davis, Clark's Green, Pa.—12 pages—Bees, Apiarian Supplies, etc.
J. C. Wilms, Waupun, Wis.—8 pages—Bees, Poultry and Eggs.
Abbott Brothers, Southall, London, England—50 pages—Bee-Hives and Appliances.
Thos. Jackson, Portland, Me.—10 pages—Small Fruit and Nursery Stock.
E. M. Bullard, West Swanzey, N. H.—28 pages—Poultry, Seeds, Plants, etc.
Joseph Nysewander, Des Moines, Iowa—30 pages—Specialties in Apiculture.
A. L. Swinson, Goldsboro, N. C.—2 pages—Queens.

◆

Frank Leslie's Sunday Magazine for April is redolent with the breath of spring, which will soon break all over the land. Here we have picture and poem, song and story, carrying with them the graceful recognition of re-awakening Nature. There are several very beautiful full page engravings, and this number will certainly be generally recognized as an excellent one.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the Journal. If you are in a "hurry" for replies, do not ask for them to be inserted here.—Ed.]

Contracting the Brood-Nest.

Query, No. 391.—I use a hive holding 9 frames about the Langstroth capacity. After swarming I wish to reduce the number to 7 frames. Would I secure as much honey by using two dummies, one on each side of the brood-nest with a bee-space all around the dummies, or would it be better to use a close-fitting board, and shut the bees out from passing around them?—Subscriber.

I do not think that it would make any difference.—A. J. Cook.

I prefer a close-fitting board.—H. D. Cutting.

Use close-fitting boards. — C. W. Dayton.

Either will do, with very little difference in favor of either.—G. M. Doolittle.

The latter method is not so convenient, and possesses no advantages over the former.—W. Z. Hutchinson.

I see no objection to the dummies with a bee-space. I have successfully used them.—J. P. H. Brown.

I think it is better to fasten the bees out from the space occupied by dummies.—G. L. Tinker.

In hot weather the dummies will probably do as well, but for cold weather the close-fitting board is better.—C. C. Miller.

In the summer months I prefer to let the bees pass under and around the "fillers" at the sides of the combs. I prefer common, loose division-boards hung bee-space apart, to any solid dummy.—G. W. Demaree.

We do not believe in close-fitting division-boards. We want a bee-space at the bottom, at least. But we would never advise reducing the hive after swarming.—Dadant & Son.

I do not think it would make much difference which method is adopted. As a matter of convenience, relative to winter packing, I should prefer the tight-fitting boards, as they could be used as a double wall.—J. E. Pond.

There would be no difference, only the "dummies" with space all around them are much easier to handle. If you contract at all, why not contract to five Langstroth frames? I am sure that better results will thus be realized. I have practiced contraction on an extensive scale for 5 or 6 years.—James Heddon.

There is but little choice between these methods.—The Editor.

Characteristics of Best Bees.

Query, No. 392.—Have we what may be called gentle strains of bees that are the equal, as producers of comb honey, of some of the more ill-tempered varieties? In other words, does ill-temper and extra-working quality exist in bees as inseparable factors?—L.

2. Yes, sometimes.—C. W. Dayton.

1. Yes, certainly so. 2. Not necessarily.—G. M. Doolittle.

Ill-temper and extra-working qualities are *not* inseparable qualities.—W. Z. Hutchinson.

To the first question, I answer yes; to the second, no not in all cases.—H. D. Cutting.

1. Yes. 2. No, but some very cross bees are also very good workers; for instance, the Cyprians.—Dadant & Son.

Yes, most assuredly. Ill-temper and business are not necessary companions.—A. J. Cook.

I am afraid there is too often some connection between the two; still it is possible that a colony of the best workers may also be very gentle.—C. C. Miller.

I really think so. What we call well-bred Italians are classed with the gentle varieties of bees, and although I have tried nearly all the races and varieties of bees, I know of none superior, as a rule, to the Italians for comb honey, and for all the purposes that bees can be put to as a source of profit.—G. W. Demaree.

Ill-temper and extra-working quality *need not* exist in bees as inseparable factors; but a very great degree of gentleness in bees is usually attended with a want of energy. A little "snap" in bees is quite as necessary as it is in human beings.—J. P. H. Brown.

Yes; most undoubtedly. The best honey-gatherers I ever had were the progeny of a gentle queen; these workers were beautiful in color, and so gentle that smoke was seldom required in manipulating them. I have a number of colonies of very gentle bees that were fine workers, so I can say in answer to the second part of the query—not by any means.—J. E. Pond.

I think we have, but I have seen no very valuable bees that were exceedingly gentle. A little crossness seems desirable, but not so cross that they cannot be handled without smoke when storing honey. The Syrio-Albino bees are fairly gentle, and there are no better workers as comb-builders. My conclusion is that extra-working quality in bees is somewhat like the go-ahead and resolute working traits of some men—it is always accompanied by a combative and fiery spirit.—G. L. Tinker.

Yes, we have them in judicious crosses of the best strains of German and Italian bees. This answers your last question in the negative.—James Heddon.

Bees from fine, "gentle" queens are in may cases superior to any cross, ill-tempered or irascible bees in the world.—The Editor.

Transferring Bees Early.

Query, No. 393.—Having 6 colonies of bees, 4 of which are in box-hives, and all in the cellar (here we put them out in the latter part of April), and wishing to stimulate them for rapid increase, will it be wise or prudent to transfer them when first put out of the cellar, as I do not want them in box-hives?—A. G., Vt.

Do not transfer them until the weather is warm, and honey being gathered.—W. Z. Hutchinson.

Transfer in fruit-bloom time. Do not transfer until they begin to get honey from some source. — C. W. Dayton.

I should prefer to wait until fruit bloom.—G. M. Doolittle.

I would not advise transferring so soon; wait until the first fruit bloom.—H. D. Cutting.

You can transfer them when put out, if you will perform the operation in a close, warm room; use precaution against robbing; and feed regularly, so that they may not want for sufficient stores.—J. P. H. Brown.

Transfer them during fruit bloom. You may transfer them earlier, if you feed them and keep them warm, but we would not do it, for there is more danger of robbing—Dadant & Son.

In my locality I would not transfer bees before fruit-bloom, and I suppose it is the same in your locality.—C. C. Miller.

I would do it at the time of fruit bloom, or in time of fruit bloom, if by the old method; or at the time of swarming, just before they swarm, if by the better "Heddon method."—A. J. Cook.

There are both advantages and disadvantages connected with so early transferring, and which you will receive the most of depends upon the season, and your skill and management.—James Heddon.

If they have plenty of stores I would not transfer them until they begin to work on the fruit-bloom. Bees that have plenty of stores do not need stimulating. When bees are transferred when working in the fields, they right things up in better style than if transferred in the fall or too early in the spring. The weather should be warm enough for the bees to spread themselves all over the combs, or they are apt to patch up clubbed - shaped combs. — G. W. Demaree.

I would either transfer them when first put out of the cellar, or wait until after swarming, and then pursue the Heddon plan of transferring. I regard it a mistake to transfer bees from box-hives during fruit bloom. It gives them a great back-set from which they do not recover for weeks after. Transfer before they have any brood to speak of, or else wait until you get a full stock of bees, is my advice.—G. L. Tinker.

No, wait until fruit-bloom. Then the weather will be warm enough so that you can "do the job" safely, and the incoming honey will cause the colonies to build up and repair rapidly, and also prevent any tendency to robbing that would be sure to follow the attempt to transfer earlier.—J. E. POND.

Transfer them during friut-bloom.—THE EDITOR.

Catching Swarms.

Query, No. 394.—Is there any successful method of catching swarms as they issue from a hive?—Monticello, N. Y.

Why, certainly; consult the books.—A. J. COOK.

None that I should care to practice.—G. L. TINKER.

Some use a bee-tent with reported success.—G. M. DOOLITTLE.

I have never used a swarm-catcher; but, in my opinion, a swarm-catcher is a possibility, but not a practicability.—W. Z. HUTCHINSON.

Yes. If you see the swarm in time you can catch the queen as she comes out. We have done it often.—DADANT & SON.

They can be caught with a net placed before the entrance. I have often caught them in that way when several swarms were issuing and were liable to cluster together.—C. W. DAYTON.

I have failed to find a good, practical method. A few low trees in the vicinity is good enough for all practical purposes. If they attempt to leave, catch them with a shot-gun.—H. D. CUTTING.

They can be caught by means of a long box partly covered with wire cloth. The box must be placed over the entrance of the hive just when the swarm starts out. I tried this plan during our great swarming year, 1883, but I do not think it "successful" or practicable.—G. W. DEMAREE.

I know of no certain method. One plan is: On the eve of swarming or before, place the empty hive beside the old one, and adjust a yard to the entrances of both hives. This yard, by swarming doors, will admit the queen into it from the hive, but as she cannot get out nor back into the old hive she has to pass into the empty hive followed by the swarm. This plan worked well with fully developed queens, but not with virgin queens.—J. P. H. BROWN.

That depends upon the style of the hive, how arranged in the apiary, and how closely that apiary is watched. Possibly, yes.—JAMES HEDDON.

My queens' wings are clipped, so that if desired the swarm can be caught as it returns. Others have caught swarms at issuing by allowing them to run into an arrangement prepared for the purpose.—C. C. MILLER.

Quite a number of plans have been given during past years; none of them, however, have seemed to me to be practical. I know of nothing better for the purpose than a queen and drone trap; that will catch the queen, and then of course you can manage the swarm.—J. E. POND.

Use a swarm-catcher, or a drone-and-queen-trap.—THE EDITOR.

Queen-Excluding Sections.

Query, No. 395.—Would it be advisable to make the slots in the sections, so that when two are placed together they will be queen-excluding, and thus save the expense of queen-excluding honey-boards? If not, what would be the objection to this plan?—Ky.

While the plan might be feasible, I have never tried it.—J. P. H. BROWN.

I do not think you can get sections made exact enough to work.—C. C. MILLER.

This plan will do if you must exclude the queen at the expense of ventilation and convenience.—DADANT & SON.

No. Such an arrangement could not be made perfect enough to accomplish the object.—G. M. DOOLITTLE.

No. We need to see between the sections. I prefer 3/8 of an inch space. We need the honey-board anyway, to keep the sections neat.—A. J. COOK.

In this locality, with the great amount of propolis, they will fill up too many of the spaces. I have had trouble in this line.—H. D. CUTTING.

A queen-excluding honey-board is not always needed, and the openings cannot be made sufficiently exact in the manner mentioned.—W. Z. HUTCHINSON.

I believe that plan would work to advantage, in getting the bees into the sections, but it might be objectionable by reason of brace-combs. It certainly would save the expense of a honey-board.—C. W. DAYTON.

No; the objection would be that the ordinary sections could not be made accurate enough, and if they could be, bees are disposed to stop up the narrow passages made of wood. The use of perforated zinc as a queen-excluder is not open to this objection.—G. L. TINKER.

I have never tested the matter, but fear the workers would not occupy them readily if the slots were so narrow as stated. It is difficult at times to get bees into sections, even when a much larger space than would allow a queen to pass through is given.—J. E. POND.

The objection to the plan is, sufficient accuracy of the width of the slots cannot be obtained in that way. Besides, every section would have to be perfect, and this would add to the cost of making the sections. The shrinking and swelling of wood makes that material unreliable as a queen-excluder.—G. W. DEMAREE.

That will not work; I have tried it. Sections are never made perfect enough; they never will be. Wood in any shape will never prove a success for forming queen-excluding work-passages for bees.—JAMES HEDDON.

The "slots" could not be sufficiently accurate to be depended upon.—THE EDITOR.

☞ The annual meeting of the Stark County Bee-Keepers' Society will occur on Apr. 12, 1887, in Grange Hall (over Farmer's Bank), Canton, O. Officers for the ensuing year will be elected. All bee-keepers are urged to be present, and those having hives or fixtures are requested to bring the same for exhibition MARK THOMSON, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near tne center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ⌐O northwest: O¬ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Proposed Honey-Producers' Association

G. M. DOOLITTLE.

I have carefully read and re-read the article on this subject, found on page 774 of the BEE JOURNAL for 1886, and I must confess that I am that thick-headed that I cannot see anything of benefit in the course advised for the world as a whole; not but what I would be the *last* one to cry prices of our production down to the helping to enrich another beyond a fair compensation for his labor, for this would be unjust to myself. The question that comes to me (and ought to come to every one, it seems to me), is, have I a right, by any combination of persons or monopoly of any kind, to extort money from any or all, that I may receive and reap a benefit to to myself? I claim that I have no such right, and any effort on my part so to do is contrary to the teachings of Holy Writ, and shows me to be selfish, not loving my "neighbor as myself."

Again, I object to such a wholesale slaughter of our commission wholesale-dealers. These are charged with being responsible for the low prices of honey, but for the life of me I cannot see how or where. Honest, sober thought, it seems to me, will convince any person who loves his "neighbor as himself," that our present prices of honey have come from a production so great that the "thousandaire" cannot purchase it all, while the wages of the day-laborer have been so reduced that he cannot afford it as a luxury as they could 12 to 16 years ago, when they were getting 300 per cent. bettey pay than they are now. The persons who have their thousands are not the majority class who consume honey; if they were there would be no oppression in advancing prices to a certain extent.

Who are the consumers of honey? The majority of them are the laboring class who now get from 75 cents with board to $1.50 and board themselves, for a day's labor. Will Mr. Baldridge change his occupation as an apiarist at the present prices of honey with any of these, thinking to make money at it? I would not. I could not do the labor of any of these men for a single month, and yet I manage my apiary and have double the money as pay for the same at the end of a year that they do; this from the sales from the apiary even at our "ruinous" prices.

Again, the commisson men are charged as having "chief interest" in *their commission*, cutting prices to "get ahead of their rival commission neighbor." With my knowledge of commission men, this is "slanderous." I have on my books the names of a score or more commission men of whom I would not listen to reports regarding their bad practices, any sooner than I would to such a report regarding my pastor, a brother churchman, or my nearest neighbor. In fact, I know that they do not cut prices for the sake of making sales.

Two or three years ago I had honey in the hands of several of these, and to meet what I was very desirous of meeting, I wrote each to cut prices so that my honey might be sold inside of two weeks, so as to give me the cash I needed. What was the result? With a single exception they all replied by advancing me a liberal amount on my consignment, and saying that they could not cut prices for me, as it would injure the market and cause much loss to others who had placed honey in their hands. To be sure I have found one or two commission men whom I have had to drop from my list; so I have of neighbors and even bee-keepers, but I wish it understood that I believe commission men as upright as the average of mankind.

Then we are told that "every important business, almost, has an organization." Has the wheat-grower such an organization? the fruit-grower, the butter-maker, or the wool grower? These are all parallel cases. If they have, why is it that our farmers are selling wheat for less than the cost of production? Why was it that hundreds of bushels of small fruit was sold the past summer so low as not to pay the cost of freight and handling, say nothing of producing? Are we not getting crazy in thinking that we must organize or do something to prevent our being cheated and beaten by those outside the bee-fraternity?

Once more Mr. B. puts the retail price of honey at from 15 to 25 cents per pound, according to quality, and says that we should supply our home markets first. Does he not know that such prices would exclude our honey from nearly every such market in the land?

A year ago I thought I would try the plan of giving a good, round commission to our store-keepers, and see if I could not enlarge the sale of honey in our town. From the quotations given in the bee-papers I figured what I thought my honey would net me shipped to commission men, and to this I added 20 per cent., as that was the commission I had decided upon as being great enough to induce the local stores to try to push the honey sales.

I then selected what I thought would be sold at home (taking only the *very choicest*, so as to be sure and have all count in the right direction), and shipped the balance, as I had formerly done. The price placed on the home-sold honey was 16 cents, instead of Mr. B's 25 cents, but the result gave only two cases of honey sold. What was the trouble? The store-keeper was not to blame, for he used all his persuasive power. A little conversation that I overheard will explain all. It was this: A customer said, "What is the price of honey?" The store-keeper replied, "Sixteen cents. It is nice; let me sell you some."

"What is the price of your best C sugar?" "Six cents."

"Put me up 10 pounds of the sugar, for with it and some water I will make 13 pounds of syrup which will do me just as well as honey; for the prices of labor will not warrant me in any such extravagance as purchasing honey." So said the customer.

When I got returns for my honey shipped to commission men, most of them had sold it for from 1 to 2 cents above quotations, so that I had lost one cent at least per pound on what had been sold at home, and made a failure besides.

Again, it is the bee-keepers of the West that are grumbling as to prices this time, while the year before it was we of the East. Why is this? Simply because last year there was a large crop in the West, while the year before the large crop was in the East. Does this not show us that supply and demand is the great regulator of all this, and not organization? The Bee-Keepers' Union cannot fix the price of honey for the United States, even at the risk of losing that $1.25 offered to it by Mr. Fayette Lee, if it will do so. My honey brought 1½ cents per pound more in 1886 than in 1885, and does any one suppose that I would have the Union fix the 1885 price on the honey of 1886? No. I hope that bee-keepers will see the folly of such nonsense.

As to the columns of the bee-papers being used as an advertising medium for commission men, I did not so understand it. I supposed that was a part of what belonged to me as a subscriber. No, Mr. Editor, I object to leaving these reports out, and I am not ashamed to have it known that I do so object! After the organization, that Mr. Baldridge wishes is perfected, will he rent a store in some of the many smaller cities of the West, handle and sell all the honey that is sent to him, become responsible for all losses, worry and bother, and pay for the privilege of quoting the prices of honey in the different papers—all for 5 per cent. commission? I trow not. Yet this is all a large proportion of the wholesale commission men ask.

I wish to emphasize Mr. Heddon's statement, that "if we as bee-keepers desire to bring ourselves into bad repute....we could not do it faster than by perfecting this proposed organization," or causing to be enacted legislative laws, both of which, as I understand them, are looking toward that which is not for the good of all concerned, but rather toward selfishness.

Borodino,⊙ N. Y.

☞ The Union Bee-Keepers' Association of Western Iowa will hold their next annual meeting at Dexter, Iowa, on Satuday, Apr. 9, 1887, in the Council Room, at 10 a.m. All interested in bees or honey are requested to be present.

J. E. PRYOR *Sec.*

For the American Bee Journal.

Regulating the Price of Honey.

GEO. F. ROBBINS.

When Mr. Baldridge said that the commission merchants are largely responsible for the low prices of honey, I think he made a statement that he cannot sustain. It may be so, but I more than doubt it. From what I can learn, I judge that the dealers have good reason to lower prices. It is certainly reasonable to suppose that considerably more honey could be sold at from 11 to 12 cents per pound than at 14 to 16 cents. I am not insensible to the effects of competition in lowering prices; but even commission merchants will generally get the best prices they can; and I should say that a man in that business is far better qualified than are producers, to judge how near or at what prices the demand will take in the supply. I do not believe that the supply could be disposed of at prices 3 cents higher than those now obtained.

But there is yet a soberer phase to this whole matter. The question occurs, are combinations right? for that is what the idea of a honey-producers' association means. I hate combinations. They are the very bulwarks of monopoly, and who does not hate monopolies, except the few who profit directly by them? To be sure, monopolies generally work to the benefit of the few and to the detriment of the many. It is much easier for 100 brewers or fruit-jar manufacturers to combine, than for 100,000 farmers or 10,000 bee-keepers. The last two appear to me impossible, it is true. But we are now assuming, for the sake of argument, that such consolidation of interests and effort are possible. Would such be any the less monopoly, because engineered in the interest of a greater number? Whatever may be the legitimate benefit of association of interests, they always beget clannishness, and clans are characteristically narrow and selfish. There is a great deal of human nature in them, as Mrs. Chaddock would say.

The producer thinks that the middle man makes all the money; the middle man says the producer gets it all. The capitalist tells you that his employes are the only ones who make anything; the employes do not think so, by a long ways. The purchaser thinks a certain price for honey is "awful high;" the apiarist calls it "awful low." So it goes. Now, to be fair with one another, each should place himself, so to speak, in the condition of the other, then adjudicate his warring claims. Hence we honey producers may well pause and inquire if our combinations and arbitrary prices are right.

Mr. B. thinks that 20 to 25 cents per pound for nice honey is only a fair price, and 16 to 18 cents is fair for inferior grades. If he were a wage-earner at $2 per day—or less—he would not think so. The laborer with a good appetite, who cannot spread the sumptuous table that his employer can, will be one of our best patrons, if he can reach our prices. But he cannot reach 20 cents per pound, and it is a wrong to keep it beyond his reach if we can otherwise make a living at the business. This I am confident we can do; and, I repeat, *must* do, if we continue to produce honey in such quantity as we do now.

During the last four years I have fought the downward tendency of prices as stubbornly as any man, but recognizing, as I must, both the necessity and the righteousness of the decline, I can best yield and "make the best of it."

There are two reasons for the downward movement in the prices of honey. One is the general change in the standard of values. Property is increasing much more rapidly than the circulating medium, and the one must adjust itself to the other. The second reason is the rapid growth of the industry itself. There is so much more honey thrown on the market than there was five years ago. That honey has declined out of proportion to other commodities, I agree is true; but it will not always be so. We must, and will, reach a more permanent footing soon. As water will find its level, so our industry will find an equilibrium as nearly as any occupation ever does.

But, chiming with others I would say, there are two things we must do: First, lower the cost of production; second, develop our home markets.

As to the market reports, that column is one of the first I look for, and I would be sorry to miss it.

Mechanicsburg, ⊙ Ills.

For the American Bee Journal.

Feeding Syrup to Bees.

J. L. HUBBARD.

I desire to thank those who responded to my query (No. 374) on the above subject, and will now give my experience.

Some 18 or 20 years ago I was selling my surplus bees, and frequently had occasion to feed them, buying sugar at times by the barrel. Thinking the hives did not gain as fast as desirable, I occasionally weighed one before and after feeding, and came to the conclusion that I got an average increase of about 6 pounds for 10 pounds of sugar dissolved to make 16 pounds of syrup. I used to let the syrup boil, but if less than 6 pounds of water was used it would skim over when cool and granulate in the cells. After getting an extractor I added a portion of honey to the mixture and had no more trouble with granulating in the cells, and could use less water.

My object was to show the expense of feeding sugar in comparison with honey. It is an easy matter to have plenty of honey stored in combs for this purpose, saving the labor of extracting and the expense and trouble of re-feeding, for there is a great loss in re-feeding extracted honey as well as feeding sugar syrup.

An experiment in this line I find recorded in another paper. The correspondent says: "To 20 colonies was fed 3,500 pounds of extracted honey, or an average of 175 pounds per colony in 35 days. The total amount of comb honey received from the 3,500 pounds was only 1,250 pounds, or 62½ pounds per colony, all in one-pound sections. The total amount for the 20 brood departments was 800 pounds, or 600 pounds of the 3,500 pounds of extracted honey stored in the 20 hives."

Here we see 1,650 pounds was used for brood rearing and other purposes, while 1,850 pounds was stored, an average of less than 5½ pounds for each 10 pounds fed. In this case a large increase of bees is reported, which was of some value.

Walpole, ♀ N. H.

For the American Bee Journal.

Section-Case for Surplus Honey

FRANK A. EATON.

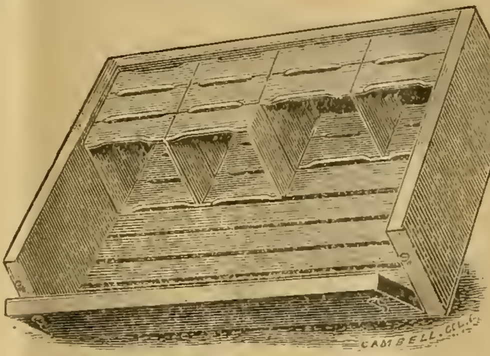
I use an 8-frame Langstroth hive for comb honey, and make a section-case of the same material, and of the size of the hive. The crates are painted, and when set on the hive they form part of it. If separators are desired, they may be used in this case by slipping a ⅛-inch strip of tin between the two end rows of sections, so as to prevent the separators from going down between the slats; then, as you put in a row of sections place a separator in. However, I have no need of separators; by using sections 7 to the foot, without separators, they hold as near a pound as it is possible to obtain, and nearly every section can be crated. This statement is not made at random, but from actual experience, in obtaining comb honey without separators from 100 to 150 colonies for the past four years. Many of the cases in use have to be used inside the hive cover to protect them from the weather, and more than one or two cases cannot be used at a time, and have them so protected.

The cover raises with this case, as fast as tiered up, setting on the case the same as on the main hive, it being made of the same material as the hive, thereby protecting the sections the same as the brood-chamber.

It admits of tiering up to the best possible advantage, there being but one bee-space between each tier. The sections are protected from brace-combs on the bottom, by the slats, the same as in a wide frame without the use of a skeleton honey-board, with a bee-space above and below it, which takes up a valuable space, besides separating the sections too widely from the brood-chamber. The movable or hinged side loosens the sections all at once, making it easy to remove them, and also allows the removal of sections if desired on the hive.

There are important points of construction that would not show in an illustration. The case embraces all the advantages of single-tier, wide frames, and a regular open-case combined, as it allows the use of separators or not, as desired. With wide frames an outer case is necessary to hold them. All I have is the outer case and the bottom-bar of the wide frames combined, doing away with the top and end bars, thereby admitting of taking hold of the top of the section instead of working the sections out of a wide frame, as it is usually done.

Bluffton, -o Ohio.



Section-Case for Surplus Honey.

For the American Bee Journal.

Temperature and Ventilation.

C. W. DAYTON.

As I believed too much upward hive-ventilation had been given in previous winters when the colonies were in the cellar, when the bees were carried in last fall each hive received two or more thicknesses of burlap that was pretty well covered with propolis. This would greatly retard upward circulation, but still allow some draft. The temperature (as in other winters) has been very steady, never going below 41° or above 43°. On raising these burlap coverings I find the bees motionless, and the underside of the burlap covered with many very large drops of water. Sometimes where the bees cluster close to the covering, the drops of water will be on the outside of the covering, and again where the bees cluster low on the combs the moisture will be attached to the upper part of the combs. Giving the hive a slight jar, a drop will become detached, and in proceeding downward unites with another and another, until quite a quantity of water plunges into the cluster and greatly aggravates the bees.

For the first 50 days no moisture appeared, but from that time on until 90 days after putting them in, the water has appeared. The tendency for the accumulation of moisture (considering the temperature and humidity of the cellar), was so slight that it required nearly 90 days to become visible. Had the temperature of the cellar been lower, it would have taken less time, and *vice versa.* If the temperature of the cellar was low, the warm circulation of the cluster would not proceed upward so far before meeting air whose temperature would condense its moisture. If the temperature is steady the condensation will continue.

It may be supposed that a low temperature causes the bees to generate a greater amount of heat. This is not the case—they only cluster closer together or more compact, and while the temperature is increased at the centre of the cluster, it is less at the outside. I hardly think bees ever resort to activity to become warm.

When the temperature is low a large share of the bees on the outside of the cluster become more or less torpid, so that the cluster may be broken and shaken from the combs, and there will be but few bees in the centre of the cluster that are able to take wing immediately. This may be so in the case of a large colony. Then if the colony was small all of the bees might become torpid or chilled, and a little more cold prove fatal.

I have never noticed indications that the bees on the outside of the cluster changed places with those on the inside when they were in winter quarters, or when they were not rearing brood. When the temperature is such that many of the bees on the outside of the cluster become inactive, they are not wintering well, and though they may remain quiet for a time, indigestion will eventually disorder them. In the case of a large colony there might be comparatively few diseased, so as to manifest symptoms of disease during the remainder of their confinement, but enough healthy bees may still remain to build up the colony to gather honey. If the colony was small, the sick ones would be likely to include all, so that it would soon dwindle away if they should not abscond as soon as removed from the cellar.

When the temperature is low, say at 30°, it causes the bees to cluster compactly, and a large part of the cluster becomes chilled and inactive. If the temperature is high, they remain active and ready to leave the cluster at any occasion. The place to fix the temperature is where the bees on the outside of the cluster will remain clustered because of the cold and for safety. But few if any of them should become stiffened by the cold. Then when there is no disturbance on change of temperature, the bees will remain clustered and motionless all winter, but may be immediately roused to action. When this condition is maintained 90 out of 100 strong colonies will come out strong and healthy in the spring. If the colonies are suspended in "mid-air" the temperature must be 44°. A lower degree of temperature will require coverings of cloth or cushions. The temperature at the center of the cluster averages about 70°, and 56° at the outside, when the bees are quietly clustered.

Bradford, δ Iowa.

For the American Bee Journal.

Case for One-Pound Sections.

DR. C. C. MILLER.

In the following letter Mr. Funk refers to a case he has already mentioned on page 121:

"BLOOMINGTON, Ills., March 7, 1887.—I have spent considerable time calculating on a surplus arrangement for comb honey this winter, as I will have to rig up from 50 to 75 more colonies for comb honey this year than before.

On page 121 the reader may see the result of some of my speculations. I think I can make it work. Possibly a strip of wood laid across the honey-board cross-wise, and strips between the cases might be an advantage to support the sections. What does Dr. Miller think of the case as described on page 121?

The objections I have to the **T** supported case, are the spaces between the sections, and in open-side sections these would be still worse; but I think the case preferable to the Heddon, although my experience is very limited.

The object of this letter is to get Dr. Miller's opinion on some other style of one-pound sections than the 4¼x4¼. With his **T** case, and the case I intend to use, 4 sections will not be long enough for the Langstroth hive; that is, the case that takes 4 sections (4¼) lengthwise will not be as long as the outside of a Langstroth hive, and of course we do not want another rim or cap over the case.

What would Dr. Miller think of a section 5 inches high by 3 11-16 inches wide? Five of these would fill a case that was 20 inches long, and allow ¾-inch for each end-piece, and give 1-16 of an inch space to allow the section to slide in. His **T** tins would want some room, but they would make the case stronger, and the ends could then be a little thinner. What length of case does he use now? Also what sections? The advantages of this section would be several—first, and the main one, the case would be as long as a Langstroth hive. Second, this section would look just a little better proportioned than the 4¼—more like the 6¼x5¼, and all know they appear nicer than the 4¼x4¼. The main objection would be an odd size section—but perhaps they would take well. I know they would if they were given favorable mention.

My 240 colonies are doing nicely; I think they will winter well.—H. W. FUNK."

Mr. Funk being a practical bee-keeper of good common-sense, and withal, I think, a good friend of mine, I do not need to try hard to make a very smooth reply.

And now what under the sun does he want to get up a new section for? If every man is his own manufacturer it does not make so much difference, but the fewer kinds there are, the easier, and to a certain extent the cheaper we can get them from the makers or dealers. Is it true that an oblong section presents any more attractive appearance than a square one? I doubt it much, and I do not think that Mr. Funk would care much for anything of the kind only as a kind of a necessity. The necessity arises from the fact that a super long enough for four 4¼x4¼ sections is not as long as a Langstroth hive. Allow me to say that in actual practice that presents no great difficulty. My hives are 20½ inches in length, and my **T** supers 19⅛, a difference, you see, of 1⅜ inches. At the back end there is a space, which, following in the footsteps of Adam Grimm, I consider desirable for ventilation; but if at any time I want the space closed, I simply lay a little pine strip over it, and it is just as well, I think, as if super and hive were the same length. The regular Langstroth, which is better, has frames ⅜-inch shorter than mine, so there would be less space to shut.

The open-side sections have been tried, perhaps, more than Mr. F. supposes. I gave them a pretty fair trial. The claim that separators are not needed with them did not prove true in my case, and I do not know of any advantage they possess, although theoretically I thought I saw advantages. I do not believe they will do anything to prevent swarming.

Mr. Funk objects to the space between sections in **T** supers. Put **T** tins on the top as well as on the bottom (they only cost $1 per 100), and no bee can touch the side of the section.

If Mr. Funk should make such an arrangement as he has mentioned, I think 1-16 space for the sections to slide in, will be rather close work.

I never tried it, but I think I should like the ⅜-inch board used as a follower. But that could be used in the **T** super, and I believe Mr. F. might like the **T** super.

Marengo, δ Ills.

For the American Bee Journal.

The Cappings over Honey.

C. P. DADANT.

The reason which Mr. Hutchinson gives, on page 152, for the non-candying of the honey referred to, is not satisfactory to me. If the protection which the cappings afford is sufficient to prevent candying, it must also be sufficient to prevent the obsorption of moisture. It is a fact worthy of notice that the same grade of honey which when extracted swells the barrel in which it is contained (air-tight), bursts the cells, and oozes out when left in the comb. I have seen the statement by different parties, that honey which is left a long time on the hive, will ripen, even if sealed. To my mind the explanation of this is found in Mr. Dibbern's article on page 150. When any honey begins to work or ferment, the bees find it out and attend to it themselves.

There might, however, be one point which would divide the decision of the question, between Mr. Hutchinson and myself. It might be that during the hurry and bustle of a big crop, the bees do not seal the cells as carefully as they would afterwards, and perhaps the leaving of the honey in the hive until long after the crop is ended, permits them to attend to what they had before neglected. This would explain why honey-comb, which has been a long time on the hive, is tougher than that which is removed as soon as sealed. But the fact remains to me most positive, that the "bees aim at compact coverings for their honey, while the caps of the brood-cells are porous!"

I would suggest to Mr. Dibbern, that the honey in old combs ferments more readily, only when this old comb has contained unsealed honey which has fermented in the cells. If all the honey put by the bees into old comb fermented, there would not be an ounce of sound honey in the brood-chamber of an old colony. Like the juice of all fruits, honey will ferment in sealed vessels if it contains the minute germs, or spores, that are the seed of fermentation. The fermentation is more or less prompt, more or less active, according to the different degrees of temperature and the greater or less amount of watery particles, which furnish the oxygen indispensable to such transformation.

Hamilton, Ills.

For the American Bee Journal.

Chaff Hives for Winter.

C. G. BEITEL.

In Mr. J. H. Andre's letter, on page 154, he advances an idea that I have had for some time. I winter all my bees on the summer stands in chaff hives, but I could never see the benefit of chaff on the sides, for although an absorbent of moisture, none can reach it there, surrounded and enclosed with boards as it is, and I had decided to try a hive which contains air-tight chambers, lined with paper, but this as well as the chaff hive can only retain the warmth but a short time beyond a single-walled hive, and prevents the rays of the sun from warming it as quickly as a single-walled hive. I have never had much loss from the chaff hives, but my objection to them is their weight and cost over single-walled hives.

Now my convictions are, that bees never die from cold if properly prepared; give them plenty of good food, have them strong, and they will survive the most protracted cold spells, because in these spells they do what Mr. Clarke calls "hibernating," and they eat little or nothing. Diarrhea is not caused by pollen, but by bad ventilation, so that they are compelled to absorb or inhale their own moisture, sweat, breath, or whatever it is called (which in the case of humanity we all know is a deadly poison), to obviate which an absorbent, such as a cushion on top, is necessary. I have therefore come to the conclusion that a single-walled hive, with a half-story on top containing a cushion, with plenty of good food, will see any strong colony through the coldest winter.

Easton, Pa.

For the American Bee Journal.

Protection of Apicultural Inventions.

J. E. POND.

The principle upon which our patent laws are based is as nearly correct as it is possible to make it. The best minds in the world have given the subject careful attention and study, with the result that our system of patent-right protection is the model one of the world. The basis of these laws is the generally recognized idea, by all men of all countries, that the inventive genius of man in any direction that will prove of value, should as much be protected as any other property he may possess, and for the reason that the results of brain-labor are property in any sense in which the word can be used; and to take advantage of these results without the consent of the inventor is theft, and theft of a meaner kind than that of purloining his horses, cattle or money. All honest men admit this, and admitting it, they ought in common decency to respect such property rights as much as they do the contents of a man's pocket-book.

Unfortunately all men are not thus honest, and many that would not steal a penny seem to think that it is all right to rob an inventor by using his invention without his consent, and if possible without his knowledge. The patent law steps in here, and guarantees to the honest inventor such protection as it can afford. What is this protection? It is the granting to the inventor the right for a certain length of time to own and control his invention, and to pursue the infringer and make him pay such money damages as he can show that he has suffered.

Now it may not be known to all that law in patent cases can only be purchased at very expensive figures, and right here is where the trouble lies in protecting patent bee-hives and apicultural appliances. The inventor and patentee of a valuable machine that costs largely to produce, or that is used largely in expensive manufactures, can well afford to pay the high cost of litigation, as the damages that will be gained are large also. Now let us apply this idea to the inventor of a bee-hive, section or any other article of use in the apiary. In the first place the demand for such articles is limited, to a certain extent, and the profit necessarily very small; the infringer, as a rule, is not a manufacturer (supplying a large trade, but an individual in an apiary of not very considerable size. The cost of pursuing into the courts an infringer in a small way, is the same, or nearly so, as the large one, but the damages received in the way of cash, or its equivalent, is small, and in nearly every case would not be sufficient to pay the fee charged, and earned too, by the attorney conducting the suit.

In cases like the above, protection does not protect, for while the law is ample, the inventor is ruined in applying it for purposes of self-protection.

For the above reasons, and for many others that might be given, would they not make this article too long, I deem the patenting of any appliance of our apiaries as an expensive luxury, and one that will not serve the intended purpose. Not that I do not believe in patents, for I do most thoroughly and completely; but the experience of Father Langstroth is ever before me, and I know of no reason why any other would succeed better than he did. The remedy for this state of things may be made the subject of a future article; a complete one will be found, however, in the application of the "golden rule," by allowing to every honest inventor all his legal and moral rights in his invention, and respecting his property produced by brain labor, as though it was his actual chattels or money.

If this state of things should obtain, there would be far less bickering and disputes over hives, etc., and I guarantee that no larger prices would be demanded for them than we are now paying. Is there a bee-keeper in the country who does not recognize the obligations of the moral law? Why not then apply the same to their dealings with their fellow-men?

Foxboro, Mass.

For the American Bee Journal.

Phenol and Foul Brood.

S. J. YOUNGMAN.

The first known case of foul brood in this county (Montcalm) was discovered by Mr. A. F. Moon (a veteran bee-master, but now deceased) while transferring a colony from a box-hive to the Harbison hive, over 20 years ago. Mr. Moon was assisted by a Mr. Hiram Rossman; although the malady had never before been seen by Mr. Rossman, it was not new to Mr. Moon, who had met with it repeatedly in transferring.

In the fall of 1885, Mr. Rossman and myself visited an apiary near Greenville, Mich., where foul brood was said to exist. Mr. R. was able at once to detect the presence of the disease, principally by the peculiar odor arising from the hive when opened, and later on by the depleted condition of the hive, and other unmistakable characteristics of the disease. This one case seemed to be all, although it was quite an extensive apiary, and the bee-keeper had been careless. We advised him to destroy the affected colony, which he did, and he recently told me that he has had no recurrence of the trouble.

I have since seen many cases of foul brood, the result of importing some bees from the South, and find that in the first stages it may be easily eradicated by the use of absolute phenol, fed with diluted honey. First extract all the honey that the affected colony may have, and pour the medicated feed directly into the cells of brood, as well as empty cells, and upon the bees, if they should be in the way. Phenol is carbolic acid in a more concentrated form, and is one of the greatest disinfectants known. All having any trouble with foul brood among their bees should try this remedy; they will find that this much-dreaded disease will soon yield to this treatment.

Cato,⊙ Mich.

* * *

Read at the N. E. Michigan Convention.

Items in Bee-Keeping.

R. L. TAYLOR.

In bee-keeping the spirit of the adage, "Take care of the pence, and the pounds will take care of themselves," is as applicable as in financial matters, so I will recount some of the "little things" which I have learned in my experience in the apiary.

HOW TO CUT FOUNDATION.

The most convenient way I have discovered to cut foundation into pieces of the right size for sections, is to take a board a foot wide or more, and somewhat longer than the sheets of foundation, to one end of which nail a head-board against which to lay the sheets of foundation to keep them even. This head-board should extend above the main board about 2 inches. Now on each edge of the main board, beginning from the head, at intervals corresponding to the size of the pieces into which it is desired to cut the foundation, securely nail blocks so placed as to extend sufficiently above the board as to slightly overtop the largest pile of foundation it is desired to cut at one operation. These blocks are to guide the rule, and are much better for that purpose than nails.

Now fill the board with foundation, putting in as many piles as the width of the board will accommodate, taking care to keep them of an equal height, and with a good knife, a good lubricator, and a straight edge, begin at the foot of the pile of foundation, and it will be found but the work of a moment to cut from 100 to 500 pieces of just the size required.

For cutting the wax there is nothing so good as a case-knife of good material, with about one-half of the length of the blade removed in such a manner as to leave the remaining part of the blade with a slant from the point of the edge back. Of course the knife should be pretty thin.

For lubricating the knife for cutting wax, nothing is better than a solution of Babbitt's concentrated lye. This lye cannot be well kept exposed to the air, and it seems to lose its virtue when kept any great length of time in solution; but I have found that it can be kept conveniently in a dry state in a common Mason fruit-jar, if the cover of the jar be kept screwd down.

MATERIAL FOR BEE-FEEDERS.

If wooden feeders are used, no doubt many have had trouble as I have with their checking, so as to cause leakage. By using basswood for feeders I have entirely rid myself of that trouble.

HOW TO CARRY BEES.

For carrying bees into the cellar and taking them out, where two persons are at command, I have found very convenient a horse made by fastening two pieces of light scantling about 18 inches apart, side by side, and supplying the platform thus made with 4 legs of convenient height. The scantling may be fastened together by simply nailing four or five pieces of narrow board across, leaving a space clear for a pair of handles like those of a wheel-barrow at each end; that is, the ends of the scantlings are to serve for handles. The legs should be well braced. Upon this two persons may carry 2 or 3 colonies easily, rapidly, and with little disturbance to the bees. This horse will also be found very convenient for carrying empty hives, cases with sections, etc.

DARKENING CELLAR WINDOWS.

The easiest and most effective way to exclude the light from windows in a bee-cellar, is to tack over the sash of each a piece of tar-paper, such as is used in the walls of buildings. If it is desired to use the window for ventilation, and at the same time to exclude the light, make a light box about 6 inches deep without top or bottom, of such size that when set on its side it will just slip into the window-frame; fill this box with hay or straw, kept in place by narrow slats nailed across both top and bottom, then slip it on its side into the window-frame in such a way as to leave the sash free to open and shut, and there will be ventilation day or night without danger of admitting light.

HOW TO SHEET WAX.

Some may be interested in knowing the proper method of dipping wax for foundation-making. It is a very simple process, but it cost me a good deal of time to learn one or two very simple things. I cannot enter into details, but will say that there cannot be much trouble if the dipping-boards are kept sharp; that is, keep every corner of every edge (side and end) as pronounced and perfect as sharp tools can make them on straight-grained wood, and see that the boards are thoroughly water-soaked, and then have the wax barely warm enough to prevent its hardening on the surface. In other words, the temperature of melting wax is the best temperature, though it will answer to have it a few degrees warmer. It should be remembered that it requires considerable time to reduce the temperature of boiling wax.

A GOOD WAX-EXTRACTOR.

Having a large number of combs to render into wax, I found it a slow operation to effect this with the Swiss wax-extractor, so having a can about 2 feet in diameter, and 20 inches deep, I had a basket made of perforated tin, such as is used in the Swiss wax-extractor, about 5 inches deep, and of a diameter just such as to allow it to slip feely inside the can. The basket is strengthened with heavy wires across the bottom, and has legs of folded tin about 4 inches long, and wire rings for handles.

To operate it, I put the can on the top of the cook-stove in my honey-house, with 2 or 3 inches of water in it; put in the basket and fill up with combs, frames and all, and cover closely. With a fire under it, the water being shallow, it boils quickly, the steam melts the combs in a few minutes, when the frames can be removed and the can refilled—a process which may be repeated several times before removing the refuse; before doing which, opportunity must be given for all the wax to run through the basket. Of course care must be taken to keep the can always supplied with water. The melted wax may be drawn off through a faucet in the can.

Lapeer,o+ Mich.

* * *

For the American Bee Journal.

How to Market Honey.

A. D. STOCKING.

Mr. Joshua Bull, on page 133, has exactly given my experience in marketing honey, in a much better manner than I am capable of doing. I have long argued this manner of selling honey, and I believe that if this plan was more generally carried out, it would soon solve the problem of the honey market. His plan of small cases for family use I have used for several years, and I am satisfied that I have sold more honey than I could have done without them. I made them to hold from 6 to 18 one-pound sections of several different sizes.

Like Mr. B., I had nice show-cases standing in a prominent place on the counters of the grocers; I also would leave some of these small cases with them, and many a time I have sold a small case where but one or two sections would have been sold but for them. I gather up the cases in the spring, and mine are good yet. Those who have not tried this plan would be surprised at the results. I also have found an excellent market amongst the farmers. I have had the market prices of Chicago quoted to me, but I have placed my honey by the side of imported honey, and have always sold it at a higher price; and then the contrast between my nice, clean honey, beside the other, would be so great as to advertise mine.

Almena,♀ Mich.

* * *

There is no Mistake in insisting that—as in all other things, so in advertising—the best is the cheapest, no matter what its first cost may be.

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 9.—Union, at Dexter, Iowa.
J. E. Pryor, Sec., Dexter, Iowa.

Apr. 12.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

Apr. 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees all Right.—F. W. Schafer, Eddyville, ♀ Iowa, on March 14, 1887, says:

Bees have wintered nicely so far; out of 22 colonies wintered on the summer stands only one died, and that dwindled on account of diarrhea, I think. Thirty-six colonies in the cellar have come through all right so far. I put them out-doors on the morning of March 12, and some were at work in the afternoon. My father, who has about the same number of colonies, lost two.

Using Foul Broody Combs.—One of our Canadian subscribers writes as follows:

Suppose that foul brood makes its appearance in an apiary that has been run for extracted honey; the combs have been exchanged from one hive to another during the honey-flow, and a good many of them have been taken from diseased colonies, and are at the present time mixed up with combs from healthy colonies. What is best to do with them? Would you melt them all up, or will they be safe to use again?

[By all means melt up the combs—it will not be safe to use them as they are.—Ed.]

Bees in Fine Condition.—A. J. & E. Hatfield, South Bend, ♂ Ind., on March 15, 1887, write:

Our 230 colonies of bees are still in the cellar, and to all appearances they are in the finest possible conditon.

Peach-Trees in Full Bloom.—J. W. Howell, Kenton, ⊸ Tenn., on March 10, 1887, writes:

My bees gathered their first natural pollen on Jan. 25. The weather has been fine ever since, and the bees have been working lively. Peach-trees are in full bloom, and bees are getting the nectar from them. My colonies are strong and healthy. I lost only 3 out of 125 colonies, in wintering, and all wintered on the summer stands in Langstroth hives. I ship no honey to market. I have built up a home market, and sell all I can produce. I get 12½ cents for sections of 1-lb. each.

Bees in Good Condition. — Otto Kleinow, Detroit, ⌒ Mich., on March 11, 1887, writes:

Bees are in very good condition; I expect to have early swarms, as most of my colonies are very strong. I have about 110 colonies of Italian bees; some have Albino queens mated with Italian drones. I also have a few pure Albinos. I think the bees of the queens that are crossed with Albinos, or with Italian drones, are very good honey gatherers—a little better than light-colored Italians.

Alsike Clover for Fodder.—Mr. Wm. M. Carr, Bradford, ♀ N. H., on Feb. 26, 1887, writes thus:

Have you published a leaflet showing the advantages of Alsike clover for fodder? If not, I should think a circular for distribution among farmers would find ready sale among bee-keepers who wish to increase the cultivation of Alsike among their neighbors.

[We have been requested several times to publish a Leaflet on this subject, and will do so at once, as suggested. Its title will be "Alsike Clover for Hay and Pasturage." It will be ready for delivery as soon as this Journal is in the hands of its readers. The prices will be 50 cents per hundred; 500 copies for $2.25, postpaid. Order at once and scatter them far and wide.—Ed.]

Bees in the Cellar.—Jas. W. Mills, Melleray, ⊶ Iowa, on March 15, 1887, writes:

My bees are in the cellar yet. I have lost one colony so far, and some more of them have the diarrhea. I would put some of them out for a cleansing flight, but my cellar is so small, and the hives are crowded in so that I would disturb all the rest of them. One man who had 5 colonies in the cellar, lost all of them. I think that extracting last fall was the cause. Another man had 27 colonies and lost 7. I believe they were on the summer stands.

Condition of Bees in Missouri.—John Blodget, Empire, ⊸ Mo., on March 12, 1887, writes:

My bees wintered well, and are bringing in pollen from the maples. I wintered them on the summer stands packed in oat-chaff. Some of my neighbors have lost very heavily, even 70 per cent. of their bees. Clover is all alive, and in all probability we will have a good year for honey. Last year the forepart of the season was good, and then it became so dry that I had to feed some nuclei to keep the queens laying until heart's-ease bloomed; but to the surprise of all there was no honey from that worth speaking of, so feeding was again the order of the day, or lose the weak nuclei, and they have wintered finely.

Legislative Pretection. — Reuben Havens, Onarga, ⊶ Ills., writes:

As a bee-keeper I ask no special legislative protection; I expect success only by *hard work*, strictly honest dealing, and striving to meet the wants of my customers in quality, style, and price of product. I find that pleasant words, kind acts, and the free use of honey will do more in controlling a "waspish" disposition than law. When these fail, and "forbearance ceases to be a virtue," and your pockets are large and full of money, go to law; not before. I fully endorse the action of the officers of the National Bee-Keepers' Union, and think if 3,000 instead of 300 would give their support to the Union it would prove grandly successful in protecting the rights of bee-keepers, and securing better prices for honey.

Wages in an Apiary.—C. W. B., of New York, asks the following:

What wages should an experienced man have for taking care of 130 colonies of bees, spring count, from the time they are taken out of the cellar until they are put back in the fall? The apiary is to be worked for comb and extracted honey, and about 50 queens to be reared for the apiary.

[Very much depends upon the locality, how well the 130 colonies are worked, etc. In general terms, I think a modern practical apiarist who is well up with the times, should command one-half more wages, to say the least, than a common laborer. I consider bee-keeping, in its true sense, partly a profession.—James Heddon.]

Wintering in a Damp Cellar, etc.—Esau Russell, Tiffin, ⊶ Iowa, on Mar. 14, 1887, writes:

Last fall I moved my apiary of 70 colonies over three miles, and put them into a cellar of a house where nobody lived last summer, the beginning of December. After they were in 2 or 3 weeks water began to come from the entrances of some of the hives. I gave them more ventilation, and it soon stopped, but the cellar did not prove to be a good one, for the hives became moldy, so I put them all out, and the bees had a good flight on March 1 and 2; it was none too soon, as a great many of them had the diarrhea. I lost 7 colonies out of 70. One colony is a puzzle to me. A little while after I put them out I noticed drones coming out of the hive. A neighbor bee-keeper here said the colony was queenless. I told him that I did not think so, as it was a strong colony of pure Syrians. I examined them and found the queen and capped brood. The drones are fine ones; there are about 70 of them, I should think.

Dr. Miller's Book, "A Year Among the Bees," and the Bee Journal for one year, we will club for $1.50.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. Not much call for extracted, and very little for comb.

BEESWAX.—25c. R. A. BURNETT,
Feb. 21. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

DETROIT.

HONEY.—Best white comb, 10@11c. Supply large and sales are slow.

BEESWAX.—23c.
Mar. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—Extracted is firm at 4@4½c., and comb at 8@12c. per lb.

BEESWAX.—19@21c.
Feb. 9. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Mar. 11. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.: white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@6c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 3@5c. Demand fair and supply ample.

BEESWAX.—25c.
Mar. 5. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4¾c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

Continuous Advertising brings much larger returns, in proportion to the outlay, than periodic or spasmodic advertising.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

ADVERTISEMENTS.

20 **COLONIES** of BEES for Sale, in 8-frame Langstroth hives, wired combs, strong in Bees and every way desirable—at **$6.00** per colony. **F. D. NAGLE,**
11A4t SOUTH HAVEN, MICH.

BEES for SALE CHEAP.—50 Colonies of Black and Hybrid Bees, strong, and in 10-frame Langstroth hives. For sale at $4.50 per Colony. **H. L. PANGBORN,**
11A3t **Maquoketa, Iowa.**

50 **COLONIES** of Hybrid Bees for Sale, in Langstroth hives—brood-chamber only—10 full frames in each. Price, **$4.00** each, on cars. **J. W. HOWELL,**
12A1t **Kenton, Tenn.**

BEES for SALE.

NOT at auction, but I will sell Colonies at $4.00 to $6.00 each ; 50 to 75 cts. extra for Feeder and 2 or 3 Section-Cases. Five per cent. **discount** for lots of **five** Colonies, with Cases ; and 10 per cent. off on lots of 10 with Cases—Cash with order. (See adv., p. 157, week before last.)
C. M. HOLLINGSWORTH,
12A1t WINNEBAGO, ILLS.

MUST Be Sold. My entire Apiary of about 30 Colonies in Langstroth hives. A severe injury prevents caring for them. A BARGAIN ! Prices to insure sale. Write to,
JAMES T. NORTON,
12Atf WINSTED, CONN.

CALIFORNIA APIARIES.

WE have four Apiaries for Sale, varying in price from $500 to $1,000.

☞ For detailed description, write or apply to.
FORTH, EASLEY & REPPY, Agts.,
12A1t SAN BUENAVENTURA, CALIF.

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

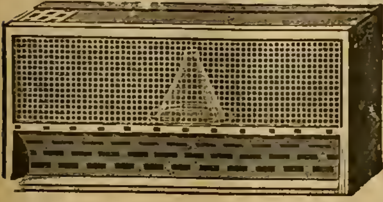
THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

M. S. ROOP,
MANUFACTURER OF
APIARIAN SUPPLIES
And Dealer in BEES and HONEY.
☞ Send for my New Circular.
Corner North 6th & Mill Streets,
12Etf COUNCIL BLUFFS, IOWA.

90 COLONIES of BEES

FOR SALE.—Italians and Hybrids, on straight worker comb in Langstroth frames. Simple and Chaff hives. Complete Surplus Arrangements.
Address, CHAS. F. KROEH.
12A2t Box 475, ORANGE, NEW JERSEY.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50 ; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail ; nailed and also in the flat.

The brood-chamber is in two sections ; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand ; a slatted honey-board, and cover ; two 6-inch brood-chambers, each containing 8 frames ; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

Hives, nailed and painted, $4.00 each.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers :

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 18 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00.**

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices : Stand, 14 cents ; honey-board, 8 cents ; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time : For 10 or more hives, 5 per cent. discount ; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

Extraordinary Exchange!

HAVING disposed of my Bee-Supply business, at DesMoines, Iowa, to Joseph Nysewander, I hope my friends and customers will be as generous with him in orders and good-will as they have with me. I am no longer in the supply trade here after March 1, 1887.
12A2t J. M. SHUCK.

WANTED.—A man to work in the apiary. Address, **R. GRINSELL,**
12A1t BADEN, St. Louis Co., MO.

75 COLONIES of BEES

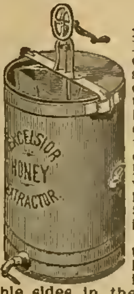
FOR Sale, Cheap.—Reason, too many. For 1 or 75, $4.50 a colony.—Address, A. P. LAWRENCE, (Box 90), Hickory Corners, Barry Co., Mich.
12A1t

WANTED.—A practical bee-keeper to assist me in caring for my bees—100 colonies. **S. HATHAWAY,**
12A2t MUNCIE, Delaware Co., IND.

My 19th Annual Price-List of Italian, Cyprian & Holy-Land Bees, Queens and Nuclei Colonies (a specialty) : Also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
12-15-18 3t LIGHT STREET, Columbia Co., PA.

WANTED, an active, reliable man in every city and town in Illinois to work up local fraternal benefit societies. Cash pay. Address
THOMAS G. NEWMAN,
925 West Madison St., CHICAGO, ILLS.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	...$8 00
For 2 Langstroth "	10x18	"	... 8 00
For 3 " "	10x18	"	...10 00
For 4 " "	10x18	"	...14 00
For 2 frames of any size,	13x20	"	...12 00
For 3 " "	13x20	"	...12 00
For 4 " "	13x20	"	...16 00

THOS. G. NEWMAN & SON,
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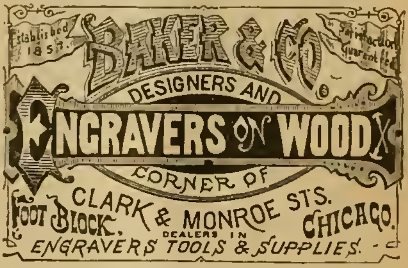


$90 a Month Salary to agents selling goods to dealers. Samples Free. $40 a month to distribute circulars. Expenses advanced. **National Supply Co., Cincinnati, O.**
12A1y

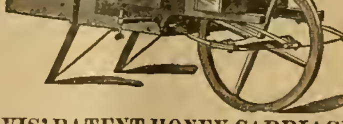
700 POUNDS OF BEES.

DURING first ½ of May I will sell the above at $1.25 per pound. Also Untested Italian Queens bred from Imported Mothers, to go with the Bees, for $1.25 each. Cash must accompany orders, and be sent before April 20. Reference, 1st Nat'l Bank here. E. BURKE, Vincennes, Indiana.
12A3t

100 COLONIES of Italian and Hybrid Bees for sale at bottom figures. Write for prices.
A. J. & E. HATFIELD,
12Etf SOUTH BEND, IND.

FINE ITALIAN QUEENS for sale, reared from Imported and Home-Bred Mothers. In April, Untested Queens, $1.25 each, or $13 per doz.; May to Nov., $1 each ; per doz. $10. Tested Queens $1 more : Select Tested, $1.50 more. Address all orders to, J. P. Caldwell, SanMarcos, Hays Co., Tex.
8A3t

Systematic & Convenient



DAVIS' PATENT HONEY CARRIAGE
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only............ $[illegible]

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923 & 925 West Madison St., CHICAGO, ILL

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

DON'T BUY QUEENS,

HIVES, SECTIONS or SUPPLIES

before you send for my Catalogue and Price-List. Address,

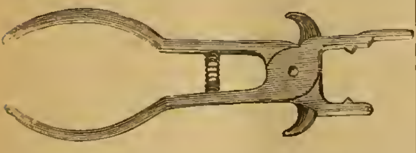
J. P. H. BROWN,
8E6t AUGUSTA, GEORGIA.

BEES! 300 COLONIES ITALIANS

READY for spring delivery at 80 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free.

OLIVER FOSTER,
11Atf Mt. Vernon, Linn Co., Iowa.

Jones' Frame Pliers.



FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, 40 cts., by mail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILLS.

FULL Colonies of ITALIAN and HYBRID BEES (with lots of brood), in 2-story Standard Langstroth Hives, almost given away.

1 to 5 Colonies.. $7 50 }
6 to 10 " 7 00 } See advertisement in American Bee Journal, numbers for Feb.
10 to 20 " 6 00 }

Address, **W. T. MADDOX,**
10Etf ALEXANDRIA, LA.

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street, Chicago, Ill.

BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.
Send for free price list, and samples of Sections and Foundation.

M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
8Etf NEW PHILADELPHIA, O.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees**, best strain, strong, and in 10-frame wired Simplicity hives; for sale at $8.00 per Colony.

Z. A. CLARK,
8Etf ARKADELPHIA, ARK.

FOR SALE CHEAP, for cash, 1 to 100 Colonies; Bees by the pound, of either Italian or Albino Bees, and QUEENS.—Address, OTTO KLEINOW, (Opp. Ft. Wayne Gate), Detroit, Mich.
8Etf

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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A SAMPLE COPY

Of the **AMERICAN APICULTURIST** will be sent free to all who apply.

Address, **HENRY ALLEY, Wenham, Mass.**
10Atf

A NEW HONEY-EXTRACTOR.

THE SIMPLEST and cheapest in the market. No special constructed can or vessel required. Any common molasses or whisky barrel or other suitable vessel at hand will do. It extracts as clean and fast as any other two-frame extractor. It is suitable for American or Langstroth frames up to 13x20. It weighs only 8 lbs. ready for shipment. Price in the flat, $2.50; set up, $2.75. State right to make, use and sell, $100. Date of patent Feb. 9, 1888. Send for circulars to the inventor and manufactor.

J. C. MELCHER.
10A6t O'QUINN, Fayette Co., TEXAS.

CLOVER SEEDS.

We are now selling Alsike Clover Seed at the following prices: $8.00 per bushel, $2.25 per peck, and 25 cents per pound. Also, Melilot or Sweet Clover Seed: $6.00 per bushel, $1.75 per peck, and 20 cents per pound, by express or freight.
All orders promptly filled upon arrival.

THOS. G. NEWMAN & SON,
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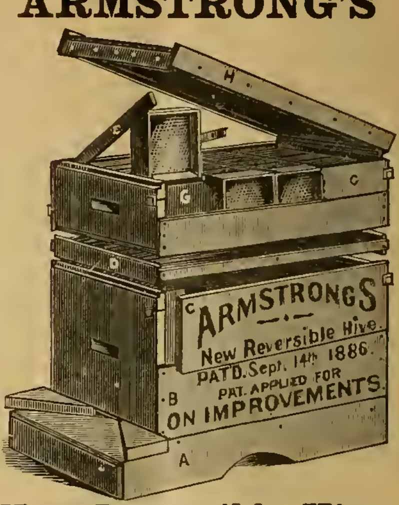
ARMSTRONG'S



New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive**, the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

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HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.

Address, HENRY ALLEY,
11Atf Wenham, Mass.

DON'T GET LEFT!—Nothing extends reputation equal to the brilliant Chromo Bee-Card. See page 77, or address,

J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

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100 **COLONIES of Italian BEES** for Sale. DANIEL WHITMER,
9A9t South Bend, Ind.

---

100 COLONIES of BEES

For sale cheap. Reason, too many.

H. NEUHAUS,
7A8t. Burlington, Racine Co., Wis.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. March 30, 1887. No. 13.

After the Shower, the tranquil sun ;
After the snow, the emerald leaves ;
Silver stars when the day is done ;
After the harvest, golden sheaves.

◆

To Make Alsike Bloom Later, the first growth may be cut when about 6 inches high, thus delaying the blooming time until about the close of the white clover honey yield. It will pay to do this, for unless it is done, the white and Alsike will bloom at the same time.

◆

A. O. Crawford has sent us a sample of his "Carton," or folding box for inclosing sections of comb honey. On the front and back of the box are nice printed labels giving the name and address of the apiarist, etc. The "Carton" makes a neat and attractive package, as well as keeping the honey from the dust while on the grocer's shelves.

◆

The Production of Comb Honey as practiced and advised by W. Z. Hutchinson. This is the title of a new pamphlet of 45 pages, just from the press. It is very entertaining and practical, and any one interested in the production of honey in the comb will be benefited by its perusal. The subjects presented are : Securing Workers for the Harvest—Supers—Separators—Sections—Tiering-up—Hiving Swarms on Empty Combs, on Comb Foundation, or on Empty Frames—Building Drone Comb—What Shall be Used in the Sections—Wax, etc. It can be obtained at this office for 25 cents.

◆

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. It should be scattered at once into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents ; 100 for 50 cents ; 500 for $2.25—all postpaid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

Shipments of California Honey.—In their "Annual Market Review," Messrs. Schacht & Lemcke estimate the California honey crop for 1886 at 2,000 tons of extracted and 500 tons in the comb. As to what became of this honey, they remark thus :

> Exports to foreign localities have been very small compared with former years, and are as follows : To England during 1886, were shipped 3,475 cases (of these 1,500 cases were shipped before July 1, and belong to the crop of 1885). To France, 588 cases were shipped, and to Australia, China, Honolulu, British Columbia, etc., about 1,200 cases. Besides these exports by sea, some shipments have been made via New York and New Orleans to England, France and Germany, but in all they aggregate hardly over 2,000 cases of honey.
>
> In 1885 the shipments to Europe were much larger, and besides large shipments via New Orleans from the Southern Counties, some 10,000 cases of honey were shipped only to England from here and Welmington by sailing vessel, and 11,000 cases in 1884 during the twelve months.
>
> The small shipments to Europe in 1886 were caused by the low prices ruling there in consequence of too heavy shipments in the preceding years, and by no means by a decreasing demand abroad, because California honey finds more and more favor everywhere.
>
> If the shipments to Europe during the past year must be called small, they have been unusually large to the Atlantic, Western and Southern States of this country. In 1886 2,643,440 pounds of honey were shipped by rail overland from here and Southern Stations against 1,270,000 pounds in 1885. These large shipments were made practicable in consequence of the low overland freights, and in consequence of a small crop in the Atlantic and Western States, and it is to be hoped that the freights will never be as high as before for honey, so that also in the future a large business can be done in this country with our honey.
>
> The supplies on hand have been considerably reduced by these shipments overland, and in this city they are, at the present time, smaller than in 1886. We estimate stocks on hand in this city to be 1,000 cases of extracted honey and 700 cases of comb honey, and in the interior hardly over 4,000 cases of extracted honey and 2,000 cases of comb honey will be found.

The flooding of the Eastern and Southern States with California honey during the past year, has been ruinous to prices, and a very great detriment to all the honey-producers outside of the Pacific Slope. The *Review* states that the prices received by California apiarists were only "from 3 to 4½ cents per pound, according to quality." These prices are ruinously low ! and, as a *result*, the prices all over the United States have been lower than ever before ! !

But now the "prospect" is *brighter ! !* California will have only half-a-crop this year, and prices in San Francisco have already advanced 25 per cent., with a "rising" tendency ! In Europe, the large stocks of last year have been greatly reduced, and there will be a lively demand in that quarter—this will also enhance prices ! The quantities of extracted honey now held in all great Marts of Trade should not be sacrificed—for *now* the prospect of an advance in price is better than it has been for a year. Those who have honey in the hands of commission men should hold it "firm" at fair figures, and thus sustain and "bull" the market ! !

The "gloom" on the honey market is passing away, and the "fog" is being lifted by the bright sun of "rising values," which even now begins to arise on the East horizon ! Very soon will it bring joy and gladness to the apiarists all over the country ! !

Good Advice to beginners is given by F. L. Dougherty in the Indiana *Farmer*, in the following lines :

> In beginning bee-culture do not spend too much money—be contented with small things—supply yourself freely with bee-books and literature—do not be economical on this point ; then get a few colonies of black bees to be Italianized afterward ; read, observe, and make good use of your observations.
>
> Hon. C. F. Greening, of Grand Meadow, Minn., has great confidence in Italian bees. He says he knows them to be good, and that they will gather honey and multiply when black bees will starve. He has demonstrated that they are earlier and later at work, are stronger, and moth-proof.
>
> Swarming is at its height here about the last of June and the first of July. During this time it is essential for the bee-keeper to be constantly on the watch for issuing swarms, unless he practices dividing, and knows their condition from constant association.
>
> Room for storing honey must be abundantly furnished at a time when it is being gathered. If not supplied, idleness will be encouraged, and perhaps loss from swarming incurred.

◆

Another lying newspaper item about comb honey has already appeared in the Milwaukee *Sentinel* and other papers, which reads thus :

> The artificial honey now made in New York, is so close to the genuine that only the experts can detect the difference. It is in "racks" the same as the natural product, and then the wings and legs of a few dead bees are to be found to further the deception. It can be sold at a profit for 10 cents per pound, and the honey-bee may go.

That "racket" must have "racked" the brain of the writer—for the "natural product" of comb honey is put up in "sections," not *racks !* and it does not contain the "wings and legs" of dead bees !" There is *not a truthful sentence* in the whole paragraph !

◆

Catalogues for 1887.—Those on our desk are from

George Neighbour & Sons, London England—70 pages—Bee-Appliances.

Martin & Macy, North Manchester, Ind.—24 pages—Bees, Queens, and Bee-Keepers' Supplies.

J. B. Mason & Sons, Mechanic Falls, Maine—24 pages—Bee-Keepers' Supplies.

Geo. H. Knickerbocker, Pine Plains, N. Y. (Silas M. Locke, Manager of Bee-Farm)—4 pages—Bees, Queens and Smokers.

Chequasset Kennels, Lancaster, Mass.—6 pages—Dogs.

Levering Brothers, Wiota, Iowa—8 pages—Bee-Keepers' Supplies.

S. H. Blosser, Dayton, Va.—8 pages—Queens and Supplies.

A. O. Crawford, South Weymouth, Mass.—8 pages—Bee-Keeping Specialties, Cartons, etc.

Rev. R. H. Fisher, Oshkosh, Wis.—14 pages—Silk-Worms and Silk-Culture.

C. D. Duvall, Spencerville, Md.—16 pages—Queens, Bees and Poultry.

◆

For a Public Man, who has served the country in the Cabinet and the Diplomatic service as Minister at the greatest European courts, and as her ablest and most philosophic historian, George Bancroft is little known to the majority of readers, so far as his personality is concerned. The opening article in *Frank Leslie's Popular Monthly* for April, presents him to us as he is, and the sketch by Ausburn Towner is extremely clever. The Voyage Down the Red Sea is cleverly told by Col. C. Chaille Long, whose knowledge of Egyptian matters is so wide, and who shows great personal observation and skill in describing. The stories, of which there are several, are extremely good reading.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Size of Apiary for One Man.

Query, No. 396.—In running an apiary for comb honey, desiring no increase, and using the latest improved hives and supers, how many colonies can one man, having a good knowledge of the business, handle so as to bring the best returns for the money invested and the time spent?—J. C., Ills.

From 100 to 200 colonies.—J. P. H. BROWN.

I should say about 100 colonies.—G. M. DOOLITTLE.

Those words, "desiring no increase," make it difficult to answer; perhaps 100 colonies.—W. Z. HUTCHINSON.

It varies according to the methods and fixtures employed, from 50 to 400 or 500 colonies.—C. W. DAYTON.

It all depends upon the man, season, locality, and circumstances.—H. D. CUTTING.

Much depends upon the man and the management; perhaps 100 colonies.—C. C. MILLER.

I think about 150 colonies; though I do not claim to be authority in this matter.—A. J. COOK.

One hundred and fifty to 200 colonies can be managed by one man in light, easily-manipulated hives, except in the heighth of swarming time.—G. L. TINKER.

If I had everything ready, cases, sections, foundation in frames and in sections, etc., so as to have no work to do except to adjust and manipulate things in the apiary, I could manage 100 colonies easily enough.—G. W. DEMAREE.

Very much depends upon the education and natural ability of the apiarist; also upon the kind of bees (Germans are the best), and *much* depends upon how the apiary is located; also the buildings for convenience; also how much work has been done during the winter preceding. In any case do you not plainly see that that number of colonies which will keep one man busy during the rest of the season, will require this man and an assistant during a few weeks of the time?—JAMES HEDDON.

An answer to this question will be largely guess-work. Different localities will give different results; different seasons, too, will do the same. Ordinarily I should guess that about 65 colonies would be all that one man could well care for, and even with that number there would be times when a little help would prove desirable.—J. E. POND.

Probably from 100 to 200 colonies.—THE EDITOR.

Moving Bees to Buckwheat Pasturage.

Query, No. 397.—1. Would it be advisable to move 30 or 40 colonies of bees 14 miles the latter part of July, on a spring-wagon, in order to get them in a locality where they would work on buckwheat, there being no buckwheat in this locality. 2. What would be the best way to ventilate each hive while moving them?—Pennsylvania.

1. It has been done with good results. 2. Cover the frames with wire-screens; place a frame about 2 inches deep under the hive with entrance ventilation.—H. D. CUTTING.

1. Yes. 2. Open the hive-entrance to its full capacity, and cover with wire-cloth; also remove the cap or cover to the hive and tack over wire-cloth or coarse gunny-bagging. Keep the hives shaded during removal.—J. P. H. BROWN.

I would hesitate to try it. In this climate the weather is very hot in July, but to cover the bottom and top of the brood-chamber with wire-cloth, and move the bees in the night, or on a cloudy day, they would not suffer severely.—G. W. DEMAREE.

It would be advisable if you have the time to attend to it. Use wire-cloth over the brood-chambers to ventilate them, and move after night.—G. L. TINKER.

1. No. 2. I ventilate the hives by covering with wire-cloth; that is tacked to a rim whose size allows it to drop over the brood-chamber, the regular covering having been removed. This is quick of adjustment.—C. W. DAYTON.

It probably would ventilate the hive at both top and bottom; also leave a space of 3 or 4 inches both above and below the combs.—W. Z. HUTCHINSON.

1. Yes, if the buckwheat field and yield is good, and no flowers are yielding where they now are. 2. By using plenty of wire-cloth. How it should be applied depends upon the hive.—C. C. MILLER.

1. Yes. Extract nearly all their honey first. 2. Remove the upper stories and put wire-cloth over the top of the brood-nest. Move them at night. We have moved bees at all seasons, but have abandoned summer moving, although it pays well sometimes.—DADANT & SON.

Buckwheat is an uncertain plant for a honey-yield. If it should yield honey well, the experiment would result favorably. I should give about 2 inches of room over the frames, confining the bees with wire-cloth over the whole top of the hive; this with a large entrance and a shaded wagon, would give sufficient ventilation for the distance stated.—J. E. POND.

It might pay well and it might utterly fail of success. Buckwheat does not always secrete nectar. Ventilation should be given above and at the side of the hive, especially at the side. If hot, it is better to move in the night or early in the morning. Great heat and strong colonies are bad companions.—A. J. COOK.

That depends upon the season and your surrounding circumstances. To ventilate the hives, place a 2-inch rim the full square of the hive, covered with wire-cloth over each brood-chamber. Give the bees water often.—JAMES HEDDON.

Yes; it probably would. The honey should be extracted before starting, and wire-cloth nailed over the brood-chamber.—THE EDITOR.

Unpainted vs. Painted Hives.

Query, No. 398.—Is not an unpainted hive both warmer and drier than a painted one, if not permitted to become wet?—H.

No, sir.—J. P. H. BROWN.

Practically, no.—A. J. COOK.

I believe it is.—G. L. TINKER.

Yes, so my experience says.—G. M. DOOLITTLE.

It is drier, but not warmer.—C. W. DAYTON.

Theoretically, yes; but I prefer them painted, by all means.—H. D. CUTTING.

It is warmer, we think, but it absorbs and evaporates moisture more readily. On the whole, we prefer painted hives.—DADANT & SON.

I once thought that an unpainted hive had some advantages over the painted ones, in the way you mention, but after trying the matter practically I have decided that I was mistaken. I now prefer to paint them.—G. W. DEMAREE.

In practice I can see no difference, only that paint preserves the wood, and best of all, prevents it from becoming darker colored than any bee-hive should ever be.—JAMES HEDDON.

Probably very little, if any, difference in warmth; and why should it be drier? If I understand the question, neither hive is to become wet. An unpainted hive, in theory, will ventilate itself through the pores of the wood, but in practice no perceptible difference will be found, in my opinion. The painted hive will last far the longer.—J. E. POND,

If "not permitted to become wet," how could it be drier? We cannot see how it could be either drier or warmer under the circumstances mentioned.—THE EDITOR.

Carniolan-Italian Bees.

Query, No. 399.—Is a cross between Carniolans and Italians a profitable bee?—H. W.

We do not believe in Carniolans at all.—DADANT & SON.

Not as good as the pure Italians.—J. P. H. BROWN.

I can see no reason why it should not be.—H. D. CUTTING.

They are about as good as a cross between the Italians and our best black bees.—G. W. DEMAREE.

I should prefer crossing 2 strains of unrelated Italians.—G. M. DOOLITTLE.

I do not believe the Carniolan bee is equal to the German for such crossing.—JAMES HEDDON.

A cross between the Carniolan and black bees might be, but the cross named would in my estimation be highly undesirable.—G. L. TINKER.

I think so; it remains to be seen. I have a cross between Syrians and Carniolans, and I like it; though I shall know more about them with longer experience. I am not yet prepared to speak of these.—A. J. COOK.

Who knows? As yet the Carniolan bee has not been here long enough to be given a thorough test, and of course crosses with it stand the same. I myself do not believe that any crossing with the Italian will be any improvement upon that race, or produce as profitable a bee for any purpose.—J. E. POND.

We much prefer pure Italians.—THE EDITOR.

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For the American Bee Journal.

Harvesting the Honey.

LOUISE S. HARRIS.

The long, bright summer-days were o'er.
The bees poetic hum
Was hushed, till near meridian height,
Plodded the morning sun.

Sweet summer—one poetic dream
Of nectar and of flow'rs;
Of hazy halo o'er the lawn,
And sylvan woodland bow'rs;

Arcadian haunts, that poet's love—
The mystic, the sublime,
Brought down to earth to rear aloft
An apiarian shrine.

But *now* the woods like huge bouquet
Of crimson, russet gold,
Tinseled by skill that's infinite,
The death of summer told.

The nipping frosts their work had done,
The flowers along the waste
No longer flirted with the bee,
That sought their sweets to taste.

All Nature spoke of boding storms,
With black-flag soon unfurled;
To waken from poetic dreams,
And face a stern, cold world!

And so I donned my hat and veil,
And pupils, (I had three)
Who saw beyond them golden sheaves
Garnered by fancy free;

We marched along, a phalanx strong,
For foraged sweets so free—
"Good heavens!" and blue-eyes hied away,
"*It stung me on the knee!*"

"Ah! ah! oh! oh!" her comrade sighed,
"My! honey ought to sell
Five times as high"—but off she flew—
"A bee's got in my veil!"

But Sam was left, a freckled youth
With yellow, sun-burnt hair,
Who "wa'nt at all afeard of bees!"
And vowed he'd "stay right there!"

And so we toiled for weary hours,
And piled the crates on high,
While myriad stings and aching backs
Caused many a stifled sigh.

The poetry our souls had filled,
Oozed out at every pore—
The melody of humming bee
Was *now* vindictive war.

Sam moved his veil to "squirt the juice,"
('Twas trickling down his chin,)
"By jingo!" and he stamped and yelled—
"The bees are rushing in!"

And still they came with fresh recruit,
Till overcome with pain,
He beat a most uncouth retreat,
And ne'er returned again.

And so I harvested alone
My golden treasures tall—
But now a sign is up—"For Sale—
Bees, Poetry and All."

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊶ east; ⊷ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ↙○ southwest of the center of the State mentioned.

For the American Bee Journal.

Prevention of Swarming—That Chip.

S. SIMMINS.

My thanks are due to W. Z. Hutchinson for his kindly notice of my pamphlet in the valuable AMERICAN BEE JOURNAL. Now I notice that he intends to give us some collective evidence in regard to wax production. Whatever he brings forward in his interesting style will be eagerly read by all: but I am afraid there is much yet to be done before anything definite can be arrived at. The resources and temperature of one's locality, the best bee for the purpose, will all have an important bearing upon the settlement of this question for individual bee-keepers.

My own position at this time is that foundation is used in many cases at a loss—not in all; and every intelligent bee-keeper will soon find out which way he is going, when his attention is once directed to this matter.

I presume Dr. Miller works his apiary for comb honey, or he could not have much difficulty in preventing the issuing of swarms if working for extracted honey. Now I wish the Doctor could be here during the summer, and I would show him those powerful colonies working right along all the time without attempting to swarm, having no attention whatever except a proper manipulation of the supers. In fact, the bee-keeper's skill is shown, not by constantly cutting out the combs between the brood-nest and entrance, but by so regulating the surplus arrangements that the bees are so busy in the sections as to be quite unable to finish off the combs next to the entrance. This is fully explained on page 10 of my non-swarming pamphlet.

The foregoing refers to hives placed one above the other, called by us "storifying;" but here we have many long hives in use, and the frames with starters being on the same level and parallel with the brood-combs, it will be found necessary to cut out the new combs occasionally as they are built out more rapidly in that position; but with 10-frame hives tiered up, and the lower body having only starters in every frame, as before stated the strongest colonies do not swarm, or fill out the brood-chamber.

I do not claim to prevent swarming with any but colonies in normal condition. In case of superseding a queen, of course there is the liability of several young ones hatching out and a swarm going off. Then, again, there are those miniature swarms from queen-rearing nuclei complained of in some quarters, though that is a thing almost unknown to myself.

Perhaps I need hardly say that if wax is to be produced at a profit, it will be done while working for extracted—will it become again "strained" honey? At present prices it will be a question whether "less labor and more wax in connection with a smaller average of honey with many more colonies," will pay better than "more labor with fewer colonies, a higher average, less wax, and a large stock of combs needing careful attention all the time they are not occupied." I venture to state that "Time" will decide in favor of the former where many colonies are kept. By placing several empty chambers under the brood-chamber before the swarming season arrives, with the entrance only in the bottom box, the owner of many hundred colonies may find something else to do during what has hitherto been considered the busiest and most expensive time in the extracting apiary. There is no crowding; the brood-nest is regulated according to the incoming stores, as the combs are carried forward in proportion, and thus there is no undue waste in feeding an excess of brood, as often is the case where the queen has an unlimited number of empty cells at hand.

Though hitherto it does not appear to have been observed, the latter statement shows wherein lies the success of the plan of hiving new swarms upon starters only. It is the non-production of many more consumers just at the height of the "flow" which gives the advantage.

Now, though I have told the Doctor that swarming has been prevented, while rousing colonies working in sections can be carried right along, I will not touch that "chip," but leave it for Mr. Hutchinson to strike off next season, though if Dr. Miller will do as I have shown, Mr. H. will not find it there, as the other will himself remove it.

One thing more and I have done: Many bee-keepers think they have no need to prevent swarming; but rather than submit to the least uncertainty when working for comb honey in particular, will it not prove a very much wiser plan to prevent natural swarming, and make increase by division at the most suitable time?

Rottingdean, England.

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For the American Bee Journal.

Fertilization of Queens, etc.

W. T. HOHENSHELL.

For some time I have been giving considerable thought to the subject of fertilizing queens in confinement; and during the season of 1886 I was determined to try my plan, which was to build a tent out of bleached muslin about 10 feet square, and have the walls spotless white, which was easily done by shading so the sun would not shine on the tent at all, but have plenty of light.

My way of preparing the bees for this object was as follows: I took some combs out of hives where there were young queens that had not begun to lay, and where there was brood hatching, and put them into an empty hive, closed it up, and kept it in a warm place until the drones hatched, then I put the new colony in the tent and inserted a selected queen-cell. My idea was that as the bees were all young, they would know nothing of the outside world, and therefore work as if in the open air, which they did to a great extent. But the worst trouble seemed to be that there was not room for them to fly backward and forward enough to locate, before they would strike the canvas, and therefore some of them would not return to the hive; but I almost overcame this trouble by leaving the top of the hive open, which did no harm, for it never rained in their little world.

They worked nicely on honey which I kept in the tent all the time. As I was very busy I experimented with only two queens, both of which proved successful. I expected to try it in a larger tent the coming summer, had my health not failed so that I am obliged to dispose of my apiary and go west. I will give any one the privilege to experiment on my plans, and I feel sure success will be attained if patience be used.

I have always been very successful with bees, and my honey was never equaled by the honey of any one in this locality. It has invariably taken the first premium wherever exhibited. I sold in my own vicinity during the season of 1886, over 5,000 pounds of comb honey, at 12½ cents per pound.

To find sale for honey it is necessary to produce it in the best possible shape, and create a market for a good article. I tried shipping to commission men, but it did not prove satisfactory. I shipped a car-load to Chicago during 1883, and I had part of it shipped back, which I sold for 16 cents per pound, while it was worth only 8 or 10 cents in Chicago.

Munster,♁ Ills.

Read at the Vermont Convention.

Marketing our Crop of Honey.

MISS M. A. DOUGLAS.

At the close of our annual honey season, or doubtless before, to the intelligent, enterprising bee-keeper the ever-recurring question, "Shall we sell our honey or give it away?" presents itself in all its different phases, for his careful consideration.

If the fruits of the apiary are to yield profitably it depends very largely upon the sale of our honey, and we are glad that so many well-developed minds are at work seeking to solve this intricate problem. I am told that in Orwell, Vt., they have what is known as the Fruit-Growers' Association, for the purpose of disposing of their products. Would it be advisable or possible for the "many men of many minds" belonging to the bee-keeping fraternity to accomplish anything by this method?

In the editorial of a recent copy of the *American Apiculturist*, I find the following significant suggestions: "The unequal distribution is evident to the observing man, and if the producer would sell his honey in country villages and to his neighbors at the price the commission man pays him, there would be but little left to ship to the city markets, and we think there would not be honey enough to go around." I should like to give special emphasis to the fact that unfortunately the producer is too many steps from the consumer.

Last fall one of my neighbors sent a shipment of honey to a leading commission house in Boston, where just the commission was 10 per cent.—$10 for every $100 sale—besides freight and cartage. He expressed the opinion that that rate was too high, and as the old man said, "Them's just my sentiments too;" and they would certainly be endorsed by the commission man himself, if he only realized the amount of expense and labor represented by every crate of honey, to say nothing of the stings and arrows of those outrageous bees—"the heartache and the thousand natural shocks that flesh is heir to"—a consummation *not* devoutly to be wished!

The editor above referred to also remarks that "there is not a country market where honey is kept on sale all the year round. If honey were kept prominently before the people as certain lines of pickles or chow-chow, there would be much more sold. The bee-keeping pursuit is away behind everything else in its method of advertising; even our county fairs—the place above all others for calling people's attention to our product—are in a great measure neglected. If it pays to advertise every other thing under the sun, it pays to advertise honey. It pays to circulate leaflets. If those already printed by different publishers do not suit the locality, print one that does; distribute fancy cards with your business, and you will sell honey directly under the nose of the bee-keeper who does not advertise.

"There is at present a great complaint about low prices, but 5 cents per pound for extracted, and 10 cents for comb honey ought not to scare the enterprising producer. (I fear it may be conducive to blues!) It will cause it to be put into the hands of thousands who never tasted honey before. It will furthermore have a tendency to make it a staple article." But to bring this about I am firmly convinced that one more thing is needful—people must be more thoroughly enlightened upon the subject!

During last fall a business man called upon me to purchase some honey. In our conversation I mentioned some extracted honey which I had for sale, and to my great astonishment, he did not know what it was—had never seen any—so of course I had the pleasure of exhibiting some. It is my custom, as far as possible, to avoid speaking of liquid honey as "strained," because that expression is so suggestive of filth.

If the consumers were better posted as regards the medicinal properties of honey, it certainly would be used freely, habitually and universally, and quack-doctors would have turned to them a cold shoulder. Speaking from personal experience, I believe it is second to no other medicine for a cold, and its use is reported to have cured lung trouble and warded of diphtheria. Then our dyspeptic friends will be glad to know that it aids digestion, and debilitated persons rejoice because it feeds and strengthens the muscles.

Next let us consider it briefly from an economic point of view. Suppose a pound of honey costs 10 cents, and a pound of butter 20 cents; since these foods are unlike, they can only be compared by market value; hence we have two pounds of honey equal to one pound of butter.

Again, in speaking of the low rates of honey, almost all other lines of goods are proportionally low, and it is not entirely discouraging to the apiarist, unless he be one of those unfortunate, constitutionally tired creatures who is satisfied to rest on the down-hill side of his occupation without even a struggle to so much as get a glimpse of the summit from afar; distress and starvation stare him in the face, and as a final result he will be left behind, and eventually "frozen out." On the other hand, the enthusiastic honey-man will resort to the "intensive system," and learn to produce more pounds of honey at a cost less than ever before.

It is asserted that almost every thing is adulterated now-a-days, and this state of affairs should be favorable to the apiarist, for when once reputation for furnishing pure honey is established, success is almost inevitable! Buyers that are accustomed to first-class honey, put up in attractive packages, are not satisfied with any second grades, but we have occasional accounts which give greater stress to the point that the taste of consumers should by some means be cultivated to demand only the A No. 1 article. Mrs. Mahala Chaddock, of Illinois, evidently believes in suiting the article to the customer, judging from the following extract from an experience recently given by her under the head of "Honey in too much style:"

"Two or three weeks ago I sold a man a box of honey. I drove up to his grocery and gave him the box and told him I would come back and attend to it after I had tied the team. I did not get back quite as soon as I expected, and when I did I heard the conversation in the next room. The man said: 'May be she won't want you to cut it out.' 'I don't care what she wants,' said the woman, 'we buy the honey and pay for it. We can't eat the boards, and we are not going to pay for them. If we have got to eat boards for a living, we can go to the lumber-yard and get some cheaper than these.'

"Here I went in, hoping to stop the desecration if possible; but it was too late. I had been very careful to get that nice honey all into good shape, rejecting, as I prepared it for market, all the sections that were not entirely sealed over, and leaving out all in which a single cell was broken; and after all to have it cut out, broken out, and punched out with great big thumbs and fingers, and dumped into a big bucket to settle down and all run into each other, just to save paying for the sections, was a little too much.

"I sustained myself as well as I could by repeating over to myself, 'Cast not your pearls before swine,' and 'He that is filthy, let him be filthy still,' and other scriptural injunctions, but all would not do—*I was mad*—not altogether from the money that the sections would bring, but the woodenheadedness of it all. But I only said I'd know what kind of honey to bring them in the future, and I'd cut it out at home and bring it in a bucket, and not have the honey dripping all over town."

But how shall we market our honey? Shall we labor on unceasingly? Shall we produce the very best article possible? Shall we obtain special customers and create a home market? Shall we organize? Shall we permit circumstances to rule, or by faithful, persistent effort *over*-rule circumstances? remembering that the resolute, the indomitable will of man can achieve much, and that

"Heaven is not reached at a single bound,
But we build the ladder by which we rise,
From the lowly earth to the vaulted skies,
And we mount to its summit round by round."

Shoreham, Vt.

For the American Bee Journal.

Putting Four-Piece Sections Together.

REUBEN HAVENS.

The main point in making ready sales, and getting the highest price for honey, is to have it neat and attractive. The eye as well as the palate must be pleased. To secure this we must have sections of uniform size, neat, and nicely put together. To accomplish this, I have been troubled in these two ways: First, in getting the bee-space between the brood-frames and supers, so that brace-combs would not be built, I find it hard to regulate. A little sagging of the frames when the spaces are made exactly right, causes trouble. In raising supers, and tiering up, the sections become daubed with honey and comb.

The other difficulty has been in getting sections put together snug, solid and smooth. Sections are not always of exact length and thickness, and in putting them together the ends of the dovetail often project so that it is impossible to fit them snugly in the supers and shipping-cases. They are out of square, and in packing the combs are cracked, causing leakage, making it very disagreeable to handle the honey, and it is impossible to sell it for anything but a second-class article.

For some time I have been experimenting with a device for putting four-piece dovetailed sections together. It consists of an iron plate 4¼x12 inches, slightly concave the long way, with two beveled jaws attached, one solid, the other movable, and adjustable to any size of section. To use it, place it on a bench, or if you desire to sit, take it on the lap, drop one side of the section between the jaws, place another piece in position with the left hand, and with a light blow with a hammer drive it together; in the same manner place the third piece, then remove and place the fourth piece in the jaws and drive together.

I have just completed one with which I can put dovetailed sections together very firmly, and have them of exact size, with no projecting ends. If the pieces are a little long, it only makes the sections more firm. It is impossible to have the sections larger than the size for which the machine is set. I can put together one-half more sections in a given length of time than by any other plan that I have ever tried. The device is very simple, and if rightly made it cannot get out of repair. It is durable and not expensive. I expect to have my honey in nicer shape the coming season than I have ever had it, by the use of this device.

Onarga, Ills.

For the American Bee Journal.

Legislation for Bee-Keepers.

DR. C. C. MILLER.

When I saw on page 57 an article on this topic, with the well-known name of "J. E. Pond" attached, my interest was at once aroused. But the very first thing comes up "priority of location." Now will Mr. Pond tell us of a single person who has ever advised, requested or desired any legislation on "priority?" And if he has reference to the question as to legislation given to a committee by the North American Bee-Keepers' Society, there certainly was no "priority" in that. Why it is that everybody tacks on "priority," I cannot imagine.

Although it may seem presumptuous in one who knows so little of law as I do, to talk to a lawyer, I think that Mr. Pond will bear with me, if I say how things look to me. He objects to special legislation. Is that the same thing as class legislation? I suppose it is, as several have made vigorous protests in both prose and poetry against class legislation. He says special legislation "is simply making laws for the protection of a certain class against all others." This does not materially differ from a definition of class legislation lately given—"legislation in favor of one class as against one or more other classes"—so I suppose they are one and the same.

In the case under consideration, what is the class in favor of which, or for the protection of which, legislation is asked? I suppose Mr. P. will say, the class of bee-keepers. Now will he tell, *against* what class? Is it against blacksmiths or lawyers? Neither of these classes care a blue button who keeps bees, or where they are kept, any more than Mr. P. and I care who has the oyster beds, only so we can have plenty at low prices. Is it against milliners or merchants? They are just like the blacksmiths and lawyers; and just the same indifference will be found among all other classes until we come to farmers, gardeners, fruit-growers, and all those who have to do directly with the products of the soil. Is the proposed legislation against these classes? They are interested in having plenty of bees to secure perfect fertilization of flowers, and so any legislation desired by bee-keepers will surely not be opposed by farmers. Does not the objection then that the desired legislation is *against* other classes, fall to the ground?

Mr. Pond takes the ground that "bee-keeping, like every other occupation, should be governed by the same general laws, competition alone being allowed to control." We are together there, and if the desired legislation were obtained there would be exactly the same competition among bee-keepers that there is to-day among farmers. He then insists that "the 'survival of the fittest' is the only law that can be made that will prove just and equitable." And there we are decidedly not together, if by that he means that bee-territory shall forever remain open with no boundary lines. If it is just and equitable for bee-keepers, why not for farmers? Neither do I think it cowardly to ask for bee-keepers just what farmers have.

I confess to thorough surprise that there should be such general opposition to a measure that looks to me so fair for all, and which I believe would be for the general good, and I can only understand it by the general agreement to unite the priority idea with this.

Allow me to impress the fact that so far as I know, no one has ever advocated obtaining legislation in favor of "priority of location." The investigation set on foot arose from the present condition of affairs in the business. It is the opinion of many, and is in accord with the general tendency in all other callings, that a business can be carried on more profitably if those engaged in it confine themselves mainly, if not exclusively, to that one business; that is, it is more profitable to have 1,000 colonies of bees cared for by 10 men than by 100, as the 10 can afford to be thoroughly posted in the business, can better afford to invest in the proper implements and fixtures so as to secure the crop with the least expenditure of time and money. But there is this difficulty in the way: If a man invests money and time for preparation in the business, he wants to feel that the investment is a safe one, and under the present state of things it is not entirely so, for after he has made a fair start, there is nothing to hinder one or a dozen from starting bees close by and all around him.

The question arises, is there any way to obviate this difficulty? for at the bottom should lie the desire to gather for the general public the most honey for the least money. There may be difficulties in the way that I have not seen, but it appears to me that some way might be devised whereby each bee-keeper should own his territory, just as a man owns the territory on which he farms, the territory for nectar being considered an entirely separate affair from the farming territory.

Instead of going into any additional reasons why this course would be wise, I may as well say right here that I think it is not best to take up any more space with the subject. If bee-keepers do not want anything of the kind, that ends it. And, Mr. Editor, if you will kindly print this article, I will promise never again to send to you anything in the same line so long as I stand entirely alone in my views. I thought those views were right, and in the line of the greatest good to the greatest number. I still think so. I venture the prophecy that if ever the time comes when all the nectar of the country is gathered, and honey becomes a regular article of diet upon every table, it will be when such provision is made that a man may feel secure in his own field against intrusion—secure that no one else may gather the nectar from fields of artificial pasturage of his own planting, and that no one may sit down beside him with bees that have the foul brood, or a strain of bees that will spoil his.

With thanks to all, for the kindly spirit shown, even when opposing me, I have done.

Marengo, Ills.

For the American Bee Journal.

Saying their Catechism.

WM. F. CLARKE.

The following burlesque of page 52, is meant as a harmless bit of pleasantry, and I hope will be received in the same merry mood in which it is written. I have never admired the catechismal method of teaching apiculture, and though invited to do so, have never joined in it. Catechisms were the horror of my childhood. We had a series in vogue then called "Pinnock's Catechisms," and geography, history, grammar—even religion—were taught in this way. I conceived a dislike for catechisms which I shall never get over. I do not consider them a good method of instruction. It is like taking a drink of water by tea-spoonsful, each teaspoon held by a different hand. I prefer to take a draught of water in copious mouthfuls and abundant swallows, and to hold the cup myself. I saw a tempting chance for a "shot at folly as it flies," so I loaded and fired off my little poetic pop-gun. I hope the discharge will hurt nobody.

TEACHER.

First class in bee-keeping will rise,
And listen, while I catechise.
In tiering-up with section-cases,
Between them should we leave bee-
spaces?

A. J. COOK.

Yes, certainly, dear teacher, I'm
Quite sure we ought to, every time.

DR. MILLER.

No special reason I assign,
But I leave spaces between mine.

H. D. CUTTING.

In my bee-practice, I endeavor,
To bring the sections close together.

C. W. DAYTON.

And so do I, I think it best
That sections on each other rest.

W. Z. HUTCHINSON.

We always ought to leave bee-spaces
Between the tiers of section-cases.

DR. TINKER.

For them I see no earthly need,
Save to manipulate with speed.

G. M. DOOLITTLE.

To my mind, needless is such space,
Though some great stress upon it
place.

DADANT & SON.

We most respectfully suggest
That sections on each other rest.

DR. J. P. H. BROWN.

Sections are easier to keep clean
When there is no bee-space between,
But I allow a quarter inch,
So bees can pass without a pinch.

J. E. POND.

"This question is a mooted one,"
And must be argued just for fun;
I'm for continuous passage-ways,
And don't approve of a bee-space.

G. W. DEMAREE.

"According to my practice, yes,"
And I am always right, I guess.
I smash my bees, if there's a crowd,
Unless bee-spaces are allowed.

JAMES HEDDON.

Bee-spaces "every time," and when
The dawn of bee-light comes to men,
No one will ever think of placing
Sections together without spacing.

TEACHER.

You all are right, my scholars wise,
And each, whichever mode he tries,
Will be successful, less or more,
In getting all his bees may store.

Guelph, Ont.

For the American Bee Journal.

Sections Filled with Comb.

W. Z. HUTCHINSON.

It is with much interest that I have read the articles that have lately appeared in the BEE JOURNAL on this subject. Mr. Heddon has several times told me that he preferred sections filled with foundation, early in the season, to those containing combs of the previous season. He said the bees would begin work sooner upon the foundation, seal it over more quickly, and smoother. Mr. R. L. Taylor expressed similar views at the late convention at Bay City, Mich. Mr. Dibbern goes still further, and says that honey stored in these half-finished combs of the previous season was imperfectly ripened, and hence it kept very poorly.

I believe all of the above bee-keepers to be truthful, but I am at a loss to understand why their experience with empty combs in sections should be so diametrically opposite to that of Mr. Doolittle and myself. Perhaps this assertion will bear a little qualification. I *can* think of one reason why honey stored in drawn comb *might* remain longer unsealed than that stored in foundation that was drawn but slightly in advance of the filling, *i. e.*, the drawing out and filling were both in progress at the same time. The opportunity for ripening is greater when the honey is not very deep in the cells; aside from this, I am unable to account for so widely different results.

My experience is very nearly like that of Mr. Doolittle. When the flow of honey is bountiful, and the body of the hives well filled with bees, brood and honey, and the brood-nest is shallow, but little coaxing is needed to induce bees to make a start in the supers, let them be filled with foundation or drawn combs; but, sometimes, the honey-flow starts out very slow, and the bees, especially if Italians and in a deep brood-nest, hesitate to make a start in the supers. Honey is stored in the brood-nest until there is not room for another drop, then brace-combs are built and filled with honey, and, as a last resort, the sections are entered and work begun. In my experience, a case of sections containing half-finished combs of the previous season, is worth nearly as much early in the season as a case of finished sections of *honey*.

In my apiary, these empty combs just over the brood-nest are very attractive to the bees. Almost as soon as put upon the hives the bees will begin crawling over them, and as soon as there is a drop of honey to spare it is placed in these combs. The bees really seem anxious to fill them with honey, and in doing this the brood-nest is relieved of all pressure, *i. e.*, it is not crowded with honey, and, as a consequence, there is more room for brood.

Another thing, this empty comb above the brood-nest acts as a sort of stimulus to the bees—it puts them in a mood for storing honey. While a colony with foundation only in the sections is hesitating about making a start, one with empty combs in the sections will have commenced storing surplus; by the time the one with foundation *has* begun work in the supers, the one with empty combs will be ready for another case of sections; and by the time the one with foundation is ready for a second case, the one that had empty combs in the first case will also need another case, while the first case will be ready to come off!

I will admit that there is not always so great a difference in favor of empty combs in the sections; but with my locality and methods, a case of sections filled with combs is worth nearly as much in the spring as a case of finished sections of honey; and the honey stored in these half-finished combs has always been sealed over as quickly as any other, and of as good quality and fine appearance.

Rogersville, Mich.

For the American Bee Journal.

Using Sections with Old Comb.

C. THEILMANN.

I have read Mr. Dibbern's article on page 150, and would like to say a few words in justice to myself and other prominent bee-keepers whose experience does not agree with Mr. D's; also to bring out more fully the unquestionable benefit and use of partly-filled or unfinished sections after the honey harvest is over.

I was much surprised after reading Mr. D's articls, as my experience of late years with partly-finished sections is the reverse of his, though some years ago I had the same trouble as he has had. He says: "I found after these sections of honey built from old comb had been on the racks a month or two, they would show a sweaty appearance with indications of souring, such as bulging the caps, and the honey running out."

It appears that Mr. D. is not making the best use of nice comb built in sections, by melting the comb and burning the sections, else he would value such combs in sections very highly, and secure No. 1 honey with them every time, and which would not sour on that account. I used to get such honey from old sections, but I have overcome all the difficulties he refers to, and now I get as good and as nice appearing comb honey, by using the sections and combs left over, as can be produced; at least it sells for the highest market price, and has also the best reputation at home.

For the benefit of those who do not know how to make the best use of old sections filled with nice comb, I will describe my method, which is as follows:

After the honey harvest is over, I hasten to take from the hives all the surplus arrangements (I have only one kind of them, which hold 24 one-pound sections each), and sort out all the sections which are not marketable or finished; as a rule these are the latest put on, and contain fall or dark honey. When all are sorted out I extract them as clean and as soon as possible. While taking them out of the extractor, I shave off all the bulged or uneven combs, if there are any, also the outer edges of such combs as are nearly full size (this latter operation takes off the thick rim on the end of the cells, and the comb will be finished and capped with new wax, which makes a nicer appearance). At this extracting the combs can be shaved with the honey-knife to any size without breaking or crumbling. After they are fixed up, I place the empty sections in the surplus arrangements, and in the evening I place them (sometimes three or four of them tiered up) on some strong colonies, and let the bees clean up everything nicely over night. The next morning I take them off and store them in the honey-house, when they are ready for another harvest.

I presume Mr. Dibbern would call this "puttering," but I can assure him that I can do this more quickly, and with more benefit financially, than he can cut out and melt the combs and burn the sections; not forgetting the time it takes for putting foundation into new sections. I alone extracted and fixed up over 1,000 sections, as above described, in two days last fall. To burn old sections is nonsense for an experienced bee-keeper; mine never get old in appearance as long as I have control of them, and I am aware that there are many more bee-keepers whose old sections are kept as clean as mine, but it appears that the "progress" of some bee-keepers has not as yet reached that point.

When I am ready to market my honey, hardly any one, as a rule, can tell which are old or new sections, and by letting the bees clean out every particle of honey, after the sections are extracted, the combs will keep sweet and nice, and the new honey put into them will keep as good as if new combs had been built. I can secure much more honey when the combs are already built; many times the bees will fill a case before they would enter one with only foundation in the sections. Even comparatively small colonies enter and fill the sections with combs, that would not touch them with only foundation; neither will the queens be apt to deposit eggs in such sections sooner than they will otherwise. I use no excluding honey-board, and out of over 10,000 sections filled with honey last season there were only *nine* with some brood in them, and five of which had foundation only.

To show that my bees will still do like Mr. D's bees did, and like mine have done years ago (by my manipulation); and that locality or climate has nothing to do with it, when they finish up old combs with some honey left in them from the previous year, which will look bad, will sour and burst open, I will give the following experience:

A year ago last fall, by an oversight, a case of unfinished sections which were partly capped over, and ready for the extractor, got in under some surplus arrangements in my honey-house. I did not discover it until last spring. I then took the opportunity to experiment with 12 sections in the case that were finished the most. I put them on a hive in a surplus arrangement, with 12 new sections with foundation; the bees filled and capped them all with clover and linden honey, but the difference between the new and the old sections was like white aud black—the white was the same as all my clover and linden honey of late years, but on the old combs the bees (or rather I) had played the same "trick" as years ago; the honey was unsalable, and in every way as Mr. Dibbern describes his honey in old combs.

The reader can see by the above that the nature of bees does not change, and that they cannot make spoiled honey good; and in order for the bee-keeper to secure nice comb honey in old combs, he must extract the honey from them and let the bees clean out every bit before it gets old and sour. By doing this we can get just as good honey, in every respect, in old combs as in new ones.

Theilmanton, Minn.

For the American Bee Journal.

Have Bees the Sense of Hearing?

ELIAS FOX.

In reference to Mr. Brimmer's article on this subject on page 121, I would like to make a few suggestions.

We are all well aware that the sound of bees' wings vary, and also that their odor varies, which is equally as well demonstrated when they are angry. The same difference that there is in the vibration of the bees' wings is as plainly noticeable in the sound of the cylinder of a threshing machine, which, as the speed is increased, emits a sharper sound; it is also the same of the wind—there is a vast difference between the sound of the gentle breeze, and the raging cyclone.

If a few bees lead a colony to a tree a mile or more away, it is on the same principle that where one or two sheep of a flock go, there also will the rest go; or the same as a covey of prairie chickens—if one flies, the whole flock follows, which is nothing but natural, and is caused wholly by sight. I would like to know how Mr. Brimmer *knows* that the tree a mile away was previously selected. In making a noise to stop absconding swarms, if they stop at all on account of it (which I very much doubt), I would rather think that it was more the movements that attracted their attention than the noise. I presume the bees would have stopped just where they did, if he had not made any noise, unless it *was* the movements that caused them to stop; and it is altogether likely that those colonies that were brought back two days in succession, would have remained just the same if the queen's wing had not been clipped. If such was not the case, they surely would have come out of the hive again and indicated their intentipn just the same.

I have had one new colony come out after being hived two days, and at a time when I was away from home; when I returned I found them clustered on a fence-post toward a forest. I returned them to the same hive without clipping the queen's wing, and they remained contentedly. If I had been at home and pounded the bottom out of a tin-pan, I might have thought that the noise saved my bees. Thus it goes; we should not jump at conclusions, "but prove them as we go."

We have all, doubtless, heard young queens piping in the hives, but under all circumstances I would much rather think that it was vibration that causes the answering. Mr. B. asks, how is the presence of a queen communicated through the swarm, if they cannot hear? I will say that it is either by the odor or vibration, or both. I would like to ask him why it is after a queen is in one's fingers, that the bees will cluster on the fingers, if they do not scent the queen.

I had a colony leave the hive last summer, and I caught the queen and caged her (her wing being clipped), and as far as she touched the ground I could see bees hunting for her like a hound on the track of a fox. They even found an old dried up queen that had been thrown out a week or two before, and clustered on her. Now if there is no evidence that bees are *not* led by the sense of hearing, why, I am no judge.

Hillsborough,+o Wis.

For the American Bee Journal.

My Experience in Bee-Keeping.

DAVID BROWN.

Being provided with the best bee-books that I could obtain, some 20 years ago I commenced bee-keeping, and with considerable success. But removing to this State my bees were left in the old home in the East, and many years passed before I again returned to bee-keeping. The study of the nature of bees and their habits has always been a pleasure to me, aside from the profits derived from them.

In the spring of 1885 I secured 2 colonies of bees, choosing colonies that were not only strong in numbers, but the most active and persistent workers in the apiaries from which I secured them, thereby getting a strain of good workers. During the summer of 1885 my 2 colonies increased to 8, and supplied me with over 350 pounds of comb honey in one-pound sections, and were, I thought, in fine condition for wintering, with abundance of stores. I wintered them in an outside root house 10x24 feet, and 8 feet high, covered with about 10 inches of earth. When the earth was frozen so as to give a low temperature, I covered it with a coarse litter to retain the frost and give uniformity of temperature. By this means I secured a temperature of 34°, and retained it at that temperature up to March 25.

They were put in their winter quarters the last week of November, and were there for 4 months. We hear of the theory of "hibernation," but this was the nearest thing to it that I ever expect to attain to; there was only the slightest sound to be heard—quiet and still for four months, and the amount of honey consumed was scarcely noticeable. And in what fine condition they were when put out! I could not conceive of them being any better—lively and ready for business, which they commenced in good earnest.

I omitted stating how I prepared them for putting into the cellar. I placed 6 dry corn-cobs crosswise of the frames at regular distances, and over them laid a piece of burlap cut one inch larger than the top of the hive; placed the cover on long enough to give the burlap a set to place, and all was ready. The cover was removed when taken to the cellar, and free ventilation allowed through the burlap. The cobs allowed the bees to pass over the frames at any time if they felt so disposed.

I thus had 8 colonies to start with last spring, and all in fine condition. On May 6 I had the first swarm, which was a very large one, and I had 7 first swarms by May 11. I removed queen-cells to prevent second-swarms. Most of the first swarms had their comb completed in the one-story Simplicity hives in six days after being put in, and were well supplied with brood. (I use full sheets of foundation.) During the latter part of June and the first of July, all (both old and new colonies) repeated the swarming process, and queen-cells were again removed, only allowing first swarms; while a few cast swarms in August. It will be noticed that I aim to allow only first swarms, thereby securing only strong swarms ready to go to work.

In the fall I had 37 strong colonies, all the increase by natural swarming, and a surplus of 2,000 pounds of comb honey in one-pound sections, and 400 pounds of extracted honey.

I placed my bees in the same cellar, and up to January they were wintering finely, though at a temperature of 41°. The temperature is very uniform, though not so low as I had it last winter. I have not shipped any honey to a distance, but am pushing a home market, and am having increasing demand. My honey is in beautiful shape, boxes well filled, and cappings white and inviting. My aim is, that none shall surpass me in placing before the people honey in more marketable form or of better quality; and so far I have succeeded.

Maple Creek,o+ Nebr.

Convention Notices.

☞ The Wabash County Bee-Keepers' Association will meet at North Manchester, Ind., on April 20, 1887, at 10 a.m. AARON SINGER, *Sec.*

☞ The semi-annual meeting of the Southern Illinois Bee-Keepers' Association will be held in the Court House at Benton, Ills., on Wednesday, April 20, 1887, at 10 a.m. All are invited to attend.
F. H. KENNEDY, *Sec.*

☞ The Union Bee-Keepers' Association of Western Iowa will hold their next annual meeting at Dexter, Iowa, on Satuday, Apr. 9, 1887, in the Council Room, at 10 a.m. All interested in bees or honey are requested to be present.
J. E. PRYOR *Sec.*

☞ The annual meeting of the Stark County Bee-Keepers' Society will occur on Apr. 12, 1887, in Grange Hall (over Farmer's Bank), Canton, O. Officers for the ensuing year will be elected. All bee-keepers are urged to be present, and those having hives or fixtures are requested to bring the same for exhibition MARK THOMSON, *Sec.*

☞ The DesMoines County Bee-Keepers' Association will meet on April 26, 1887, at the Court House at Burlington, Iowa, at 10 a.m. All interested in bee-keeping are invited to attend. Articles sent for exhibition, to the Secretary, at Middletown, Iowa, will be exhibited and returned or sold, as directed. JOHN NAU, *Sec.*

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 9.—Union, at Dexter, Iowa.
J. E. Pryor, Sec., Dexter, Iowa.

Apr. 12.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

Apr. 14.—Eastern Indiana, at Richmond, Ind.
M. G. Reynolds, Sec., Williamsburg, Ind.

Apr. 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Apr. 20.—Wabash County, at N. Manchester, Ind.
Aaron Singer, Sec., Wabash, Ind.

Apr. 20.—Southern Illinois, at Benton, Ills.
F. H. Kennedy, Sec., DuQuoin, Ills.

Apr. 26.—DesMoines Co., at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 5.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM
OUR LETTER BOX

Good Prospects for 1887.—F. J. Sawin, Monmouth,+o Ills., March 21, 1887, writes:

My average yield of comb honey last year was 93 pounds per colony; of extracted honey, 162 pounds per colony. From just one colony I took 293 pounds of extracted honey. My bees have come through the winter in splendid condition, and the prospect is good for a crop of honey. Clover is alive and looks fine. I like to compare reports on wintering.

A New Use for Sweet Clover.—C. H. Dibbern, Milan,-o Ills., writes:

It has usually been supposed that the sweet or melilot clover was of no use, except for the honey produced. I find, however, that the stalks contain an excellent fiber that may prove very useful for various purposes, especially in the manufacture of twines. Enclosed please find a sample. Is this not like Abe Lincoln's rat hole, "worth looking into?"

[Yes; and we have looked into it. We have interviewed several hand manufacturers of twine, but they cannot use it; so we sent the sample to a firm who make, by machinery, hemp rope, and they say that it will probably answer the purpose, and want to obtain a bale of it, so as to give it a thorough trial and determine its cash value for such purposes.—ED.]

Scarcity of Honey in Virginia.—T. T. Phlegar, of Giles County, ♀ Va., on March 19, 1887, says:

How funny it sounds to hear the bee-men of the North say that they cannot find ready sale for their honey, when with us here, 125 miles from any thing like a city, we can hardly get enough honey to sweeten a little sage-tea for the baby's sore mouth. A few cans this way would be quite a treat.

Sundry Questions.—F. S. C., of Wabash Co.,♂ Ind., propounds the following questions:

1. Are bees that have been wintered in the cellar more liable to chill when put out, than those wintered out-doors? 2. If on a nice day in mid-winter a colony is put out for a flight, and the bees spot nothing; and on mashing a bee it is found almost as empty as a shell, would a flight do such bees any good? 3. Will bees store as freely when excluded from the queen, as when with her?

[1. Yes. 2. No. 3. Yes.—Ed.]

The Work in the Apiary.—A. A. Fradenburg, Port Washington,○→ O., asks the following questions:

Having 50 colonies of bees in the spring, all in good condition, how much of one man's time should it take to care for them properly for one year? All are to be worked for comb honey in one-pound sections, no allowance being made for making new supplies, or the care and marketing of the honey after it is once put in the honey-house. In other words, how much time per colony, per year, is required to do the necessary work in the apiary?

[This question is practically answered on page 196.—Ed.]

Good Results.—Mr. T. W. Colbert, (20), Smith's Valley,⊙ Ind., on March 21, 1887, says:

I commenced the season of 1886 with 9 colonies; increased them to 20, by dividing, and took 700 pounds of comb honey in one and two pound sections, which I sold at home at 20 cents a pound. My bees have wintered finely. I packed them in clover chaff, which, I think, is better than anything I have ever yet tried for packing.

Bees Wintered in a Cave.—R. C. Aikin, Shambaugh,♀ Iowa, on March 18, 1887, writes:

Bees have wintered well in this locality. I put mine in a cave in a dry hillside, and so far I have lost only 3 colonies out of 52. The ones lost were no better than nuclei last fall; two of them starved, and one was queenless. I think I left them out too long. They were put in on Dec. 24, and taken out on Feb. 28. I would have left them in longer, but they were beginning to soil the hives, so I put them out; after a flight I put 3 back, and they are quiet yet. The temperature was from 30° to 40°. I think they would have done better if put in earlier and kept warmer. We had a month of winter before I put them in the cave. I had 28 colonies in the same cave the winter before, and lost none. I increased the 28 to 52, and produced 2,000 pounds of honey, mostly extracted. That was less than one-half the previous season's average. The dry weather accounted for the difference.

Young Bees Out, etc.—D. D. Daniher, Madison,♀ Wis., on March 20, 1887, says:

My bees are all right so far—24 colonies in the cellar and 6 out-doors. Six colonies with Cyprian queens have plenty of young bees out on the combs already. There is a fair prospect for a good honey harvest. I sold half of my honey at 10 and 11 cents per pound. Extracted honey is sold here for 5 cents per pound. Every store has plenty on hand. Some Chicago comb honey is selling here for 12 cents per pound. I sell all of my honey at home. I kept all my bees 5 miles in the country last summer, and they did finely. I expect to keep them there this summer. There was 10 acres of Alsike clover close to my bees last year, and they did a "land-office business" on it. I had only one natural swarm.

Fastening Foundation — Feeding Bees.—E. W. H., of Indiana, asks the following:

1. I see that the top of the sections I have purchased have a cut for putting the foundation in. How is the foundation to be fastened in? 2. Is there any danger in putting out feed for bees where there are no other bees near, if the feed is a rod or two from the hives? Will it set the colonies to robbing each other?

[1. Use a foundation fastener; or if you do it by hand, run melted wax in the "guide-groove," and the foundation will be held firmly by it when it cools.

2. It is *safe* to feed at the entrance by using a feeder, or to place honey in combs over the frames; but there is always danger when honey is exposed near the apiary. The further it is removed, however, the less the danger.—Ed.]

Wintered Well—Honey Thieves in Prison.—Wm. H. Graves, Duncan,⊙ Ills., on March 21, 1887, writes:

I began the winter with 100 colonies of bees, 55 on the summer stands, and 45 in the cellar. So far all have come through in good condition, except 2 of those out-doors. I have put out part of those that were in the cellar. They gathered the first natural pollen on March 12, the day I put them out of the cellar. The next six weeks is when I usually lose the most bees; the weather at that time being so variable, they will "spring dwindle" in spite of any precaution on my part. They fly out during bright spells of sunshine, and are overtaken by cold waves and clouded sky, preventing their return to the hive. Two of the parties who stole my honey last fall are now serving two years' sentence in the State's Prison of Ohio; they had broken out of jail and came here, and were taken back again about Dec. 1, 1886.

White Clover all Right.—R. R. Murphy, Garden Plains,○→ Ills., on March 21, 1887, writes:

Bees have wintered well. I lost one colony out of 102 put into a bee-house, and that was queenless last fall. One colony had the diarrhea pretty badly from some cause, but it is a fair colony yet; it will probably die, though. The white clover has not been winter-killed, so if the season is favorable, we will have a good honey year.

Not Lost a Colony.—Jno. B. Sample, Elizaville,⊙ Ind., on March 21, 1887, says:

My bees are doing well. I have not lost a colony. They were gathering pollen on March 12. There are not many bees in this neighborhood.

The Weather in New York.—G. M. Doolittle, Borodino,⊙ N. Y., on March 21, 1887, writes:

This winter (it is winter here yet, although the month of March is called a spring month) has been a severe one on the bees that are on the summer stands in this locality. There has been but one day during which the mercury has gone as high as 44° in the shade since Nov. 3, or for nearly five months. As it needs 45° in the shade for bees to fly, with snow on the ground, it will be seen that the bees have been confined all of this time. The result is that many colonies are uneasy, and a few are soiling their combs and hives badly. Many will die if an opportunity does not come soon for them to get out. Those in the cellars are in fine condition.

Novel Way of Selling Honey.—M. L. Barney & Bro., Hartford,○→ Wis., on March 24, 1887, write:

This is the way we sold our honey last year: We accidentally met a traveling-man who was selling gloves, mittens, etc.; we gave him a sample of extracted honey in a ½-pint flask, put $10 in his hand, and said, "sell." In a few days we were over-run with orders at 8 cents per pound, delivered on the cars here. In 3 weeks our entire stock of honey was sold to country stores in northern Wisconsin, on 30 days' time, and all good sales. Over 3 tons was sold. Honey in pails we sold for 10 cents per pound.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly Bee Journal for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the American Bee Journal for one year, will be clubbed for $1.25.

AMERICAN
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At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c. Not much call for extracted, and very little for comb.

BEESWAX.—25c. R. A. BURNETT,
Feb. 21. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California, 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

DETROIT.

HONEY.—Best white comb, 10@11c. Supply large and sales are slow.

BEESWAX.—23c.
Mar. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¼@4½ cts.; amber, 3¾@4¼c. Comb, white, 10@13c.; amber, 7@9c. Market firm.

BEESWAX.—Firm at 20@23.
Mar. 21. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Mar. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 4@7c. per lb. Nice comb brings 12@15c. per lb. in a jobbing way.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jan. 22. C. F. MUTH & SON, Freeman & Central Av

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.; white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@6c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 3@6½c.; in small packages, 7@8c.; dark, in barrels and kegs, 3@5c. Demand fair and supply ample.

BEESWAX.—25c.
Mar. 5. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4½c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

Continuous Advertising brings much larger returns, in proportion to the outlay, than periodic or spasmodic advertising.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages).............	$1 00
" 100 colonies (220 pages)......	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

* * *

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

* * *

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result —a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

* * *

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

* * *

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

ADVERTISEMENTS.

BEES wanted for Piano, Organ, Watch, Opera-Glass, Mulberry-trees or Silk-worms.—Address, Silk-culturist Fisher, 235-8th St., Oshkosh, Wis.
13A1t

WANTED.—A Situation in some California Apiary. I have had 10 years' experience with 80 to 100 colonies. I am troubled with catarrh, and my physician advises me to go west. I have for Sale 50 COLONIES of Bees. Will sell Hybrids for $5; Pure Italians, well marked, $6; or Selected Italians, such as I would breed from, for $7 each.

Also a 12-inch Dunham Foundation Machine for $20. Or will sell the whole outfit, with sections, 40 empty hives, &c., for $300. Must be sold before May 1st. ☞ Correspondence Solicited.

W. T. HOHENSHELL,
13A1t MUNSTER, LaSalle Co., ILL.

P. Rock & B. Leghorn eggs for hatching; good stock. Will exchange for Italian Bees by lb., Queens, Sections or Foundation.
13A1t L. W. LIGHTY, Mulberry, York Co., Pa.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS written, published, and now offers for sale, a little book upon

"THE PRODUCTION OF COMB HONEY."

Its prominent feature is the exhaustive manner in which it treats of the non-use of full sheets of Comb Foundation in the brood-nest when hiving swarms; but it touches briefly upon some of the most important points connected with the profitable production of Comb Honey.

☞ Price of the book, postpaid, 25 cts.
13Atf

200 COLONIES

OF

Choice ITALIAN and ALBINO BEES

FOR SALE AT

GREATLY REDUCED PRICES

Also a full line of

Bee Keepers' Supplies

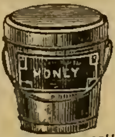
COMB FOUNDATION from **Choice,** Select, Yellow BEESWAX a **Specialty,** at very low rates, both wholesale and retail.

Do not fail to send for my 27th Annual **Catalogue** before purchasing.

Address, **WILLIAM W. CARY,**
Coleraine, Mass.
5Dtf Mention this paper when writing.

100 COLONIES of **ITALIAN** and **HYBRID BEES** for Sale Cheap. H. J. SMITH,
11D4t Burlington, Wis.

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

A GREAT SCHEME! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,

J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

EXTRA NICE

SECTIONS and **Foundation** at reduced prices. Send for samples.

Also a full line of SUPPLIES at very low rates. Price-list free.

☞ **Cash for Beeswax.**

A. F. STAUFFER & CO.,
3Dtf STERLING, ILLS.

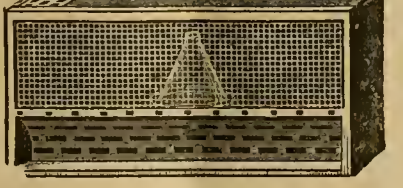
Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

FINE ITALIAN QUEENS for sale, reared from Imported and Home-Bred Mothers. In April, Untested Queens, $1.25 each, or $13 per doz.; May to Nov., $1 each; per doz. $10. Tested Queens $1 more: Select Tested, $1.50 more. Address all orders to, J. P. Caldwell, San Marcos, Hays Co., Tex.
8A3t

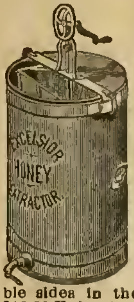
Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.: 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches.....	...$8 00
For 2 Langstroth "	10x18	"	.... 8 00
For 3 " "	10x18	"	.........10 00
For 4 " "	10x18	"	.........14 00
For 2 frames of any size,	13x20	"	.........12 00
For 3 " "	13x20	"	.........12 00
For 4 " "	13x20	"	.........18 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

BEE-KEEPERS' Guide, Memoranda & Catalogue for 1887 **Free.** Reduced Prices.—Jos. Nysewander, DesMoines, Iowa.
5D6t

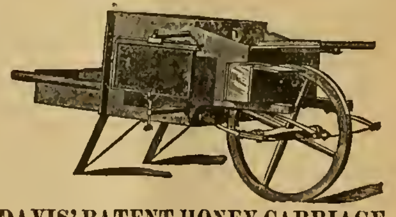
COMB FOUNDATION.

DUNHAM Brood Foundation, 40c per lb; Extra-Thin Vandervort Foundation, 45c. per lb. **WAX** made into foundation for 10 and 20c. per lb. **Ten** per cent. discount on all orders received before the 15th of April. **Samples free.** F. W. HOLMES,
9Dtf Coopersville, Mich.

BROOD-FRAMES of any size, prepared to nail, 90 cts. per 100; $4.00 per 500. Send for description, to **C. W. DAYTON,** BRADFORD, IOWA. 9Dtf

$90 a Month Salary to agents selling goods to dealers. **Samples Free. $40** a month to distribute circulars. **Expenses advanced. National Supply Co., Cincinnati, O.**
12A1y

Systematic & Convenient



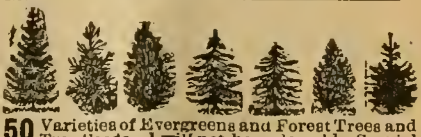
DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only..... ..... $18 00.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHCAGO, ILL.

90 COLONIES of BEES

FOR SALE.—Italians and Hybrids, on straight worker comb in Langstroth frames. Simple and Chaff hives. Complete Surplus Arrangements.
Address, CHAS. F. KROEH,
12A2t Box 475, ORANGE, NEW JERSEY.



50 Varieties of Evergreens and Forest Trees and Tree Seeds. I will not be undersold. Special prices on large trees by the carload. Lists free.
GEO. PINNEY, Evergreen, Wis.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

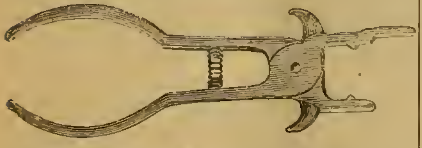
☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

BEES! 300 COLONIES ITALIANS

READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free.

OLIVER FOSTER,
11Atf Mt. Vernon, Linn Co., Iowa.

Jones' Frame Pliers.



FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, 40 cts., by mail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILLS.

MUST Be Sold.

My entire Apiary of about 30 Colonies in Langstroth hives. A severe injury prevents caring for them. A BARGAIN! Prices to insure sale. Write to,

JAMES T. NORTON,
12Atf WINSTED, CONN.

WANTED.—A practical bee-keeper to assist me in caring for my bees—100 colonies.

S. HATHAWAY,
12A2t MUNCIE, Delaware Co., IND.

700 POUNDS OF BEES.

DURING first ½ of May I will sell the above at $1.25 per pound. Also Untested Italian Queens bred from Imported Mothers, to go with the Bees, for $1.25 each. Cash must accompany orders, and be sent before April 20. Reference, 1st Nat'l Bank here.

E. BURKE, Vincennes, Indiana.
12A3t

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street, Chicago, Ill.

The NEW Heddon Hive.

We have made arrangements with the Inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

Hives, nailed and painted, $4.00 each.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00.**

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively.

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

Extraordinary Exchange!

HAVING disposed of my Bee-Supply business, at DesMoines, Iowa, to Joseph Nysewander, I hope my friends and customers will be as generous with him in orders and good-will as they have with me. I am no longer in the supply trade here after March 1, 1887.

12A2t J. M. SHUCK.

BEES for Sale Cheap.—Black and Hybrid bees in ten-fame Langstroth hives, strong in bees, and on straight worker combs. Put on cars for $4.00 per colony. Will ship in hive or in light shipping-cases. No disease.

13A4t H. L. Pangborn, Maquoketa, Iowa.

20 **COLONIES** of BEES for Sale, in 8-frame Langstroth hives, wired combs, strong in Bees and every way desirable—at $6.00 per colony.

F. D. NAGLE,
11A4t SOUTH HAVEN, MICH.

CLOVER SEEDS.

We are now selling Alsike Clover Seed at the following prices: $8.00 per bushel, $2.25 per peck, and 25 cents per pound. Also, Melilot or Sweet Clover Seed: $6.00 per bushel, $1.75 per peck, and 20 cents per pound, by express or freight.

All orders promptly filled upon arrival.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

ARMSTRONG'S
New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.

Address, HENRY ALLEY,
11Atf Wenham, Mass.

100 **COLONIES of Italian BEES** for Sale.

DANIEL WHITMER,
9A9t South Bend, Ind.

100 COLONIES of BEES

For sale cheap. Reason, too many.

H. NEUHAUS,
7A8t. Burlington, Racine Co., Wis.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

A SAMPLE COPY

Of the **AMERICAN APICULTURIST** will be sent free to all who apply.

Address, **HENRY ALLEY**, Wenham, Mass.
10Atf

A NEW HONEY-EXTRACTOR.

THE SIMPLEST and cheapest in the market. No special constructed can or vessel required. Any common molasses or whisky barrel or other suitable vessel at hand will do. It extracts as clean and fast as any other two-frame extractor. It is suitable for American or Langstroth frames up to 13x20. It weighs only 8 lbs. ready for shipment. Price in the flat, $2.50; set up, $2.75. State right to make, use and sell, $1.00. Date of patent Feb. 9, 1886. Send for circulars to the inventor and manufactor.

J. C. MELCHER.
10A6t O'QUINN, Fayette Co., TEXAS.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. April, 6, 1887. No. 14.

The Best Honey Weather is when it is warm and moist, when the air is full of electricity and a storm approaching.

* * *

The Apiary of Wm. Couse, in Ontario, was destroyed by fire on March 15. It consisted of 120 colonies of bees, with the necessary implements for the apiary.

* * *

An Apiarist in France claims that he has made experiments which prove that only from 6 to 8 pounds of honey are used by the bees to produce a pound of comb.

* * *

George E. Hilton, President of the Michigan State Bee-Keepers' Association, has been nominated for Supervisor of Dayton Township, Newaygo County, Mich.

* * *

It is Poor Economy to use old and dirty sections for comb honey. It will pay better to commit all such to the flames, and buy new and clean sections for new and delicious honey.

* * *

During the year 1886, 11,000 pounds of beeswax were shipped from California by sea to Europe ; 41,000 pounds overland by rail, mostly to New York, and 3,000 pounds via Panama to New York.

* * *

While there has been great pains taken in breeding queens, it is plain that too little attention has been given to the propagation of good drones to make bee-keeping more profitable.—*Indiana Farmer.*

* * *

Two Little Boys were discussing the strength of a bee. "He can pull more'n a fly," said one of them. "Well," said the other, "I dunno how much he calls pull ; but when he backs up to you and pushes, I guess you'll fall back every time."

* * *

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

Honey-Candy.—It is praise-worthy to place good, wholesome, and health-giving "candy" within reach of the children, instead of the poisonous *stuff* that now tempts their appetite to the expense of their health. This would make another outlet for the consumption of the large crops of honey now being produced. We know of some persons who would gladly manufacture it for the market, but are] not "posted" as to how to do so.

Now, we invite every person who knows how to make candy, jumbles, or anything of a similar nature from honey, to write out the recipe and send it to us for publication *at once.* Please do not lay this copy of the BEE JOURNAL away and forget it, but sit down *now* and send it, so as to be in time for next week's JOURNAL. It is in the general interest of bee-keeping to do so.

* * *

Alsike Clover is but sparingly grown in the Northwest at present, but it is a "prime favorite" with those who know its good qualities. In order to answer many queries that are being received, we quote the following from the *Farm, Stock and Home :*

> When once seeded it is always seeded. While the crop does not interfere with cultivated crops, is in no sense a pest, yet when cultivation ceases a good crop of Alsike will soon follow. It makes an excellent fall feed, good until snow covers the ground, and as soon as snow is off in the early spring cattle will leave hay and other fodder to eat Alsike, if they can have access to it. A case of hoven has never been known to follow the freest indulgence in Alsike by very hungry animals.
>
> The stalk is finer than red clover, so that while it makes an excellent pasture, it is no less superior for hay. For low lands it is the best of all clovers, while on uplands it has proven to be second to none. During last summer's drouth, while all other pastures were dried up, the Alsike was fresh, luxuriant, and keeping stock in splendid condition.
>
> Seed with grain, wheat preferred, and sow in connection with timothy, eight quarts of the latter to two of Alsike.

* * *

Lizzie Cotton.—Mrs. L. Harrison, in the *Prairie Farmer,* remarks thus about this "queen of humbugs :"

> In an Ohio paper she says : "I have invented a hive and new system of bee-management, which render the business pleasant and profitable. I have received one hundred dollars from a sale of box-honey from one hive of bees in one year." It is strange that people will be taken in by such advertisements.
>
> A pleasant, old white-haired grandfather was here last week. He said : "I had been reading this woman's advertisement for several years, and I sent to her for a hive ; I paid $12 in Maine for it, and $2 expressage ; she wanted me to pay her $14 more for a pencil drawing of the hive, but I did not do it. I have had some hives made like hers, and they cost me $1.25 apiece."

Several of her late circulars have been sent to this office by apiarists to whom she had sent them, but had been warned in advance, and did not send her any money. Our advice is : Do not send money to any one unless you know they are reliable, and are doing business on the "square."

* * *

Dandelions, willows, and skunk cabbage are the first to yield honey to the bees in the spring. Then comes the blossoms of fruit, hard maple, white clover, small fruits, basswood, sumach, winding up with goldenrod, aster, Spanish-needle and smart-weed.

Opinions Differ.—How very silly it is to condemn another because of an honest difference in opinion. We cannot all see alike, and it is well that we *cannot,* else there would be no advance made in the pursuit. We are forcibly reminded of these differences by some remarks made by Mr. C. H. Dibbern, in the *Plowman.* He says :

> Bee-keeping has made great progress during the last twenty years ; but I am inclined to think that even greater progress will be made during the next decade or two. Singularly enough, some good bee-keepers see no advantages in some of our best improvements. Doolittle does not believe in comb foundation, but would not do without separators. Heddon likes foundation, but condemns the separators. Dadant makes very nice foundation, but prefers to extract all his honey. Hutchinson and Clarke, and others are enthusiastic over invertible hives, while Pond and Demaree say they are no good. Now were we to discard all the things that even good bee-keepers condemn, I fear we would have but little left besides the old "gums" of former days. I find nearly all the great improvements that are generally recognized a good thing. The extractor, comb foundation, honey sections, cases for hives, shipping-cases, separators, and many other things are grand improvements. I have made some valuable experiments with invertible hives this season, and firmly believe they are the hive of the future.

* * *

Counteracting Fermentation.—That the "sting" and poison apparatus of bees have another object than that of a weapon of defense, is shown by the following from a German source :

> At a meeting of the Physiological Society of Berlin, it was stated that when the bee has filled the cell either with pure honey or a mixture of pollen-dough and honey, and has completed the lid, a drop of formic acid obtained from the poison bag connected with the sting is added to the honey by perforating the lid with the sting. Numerous experiments have shown that this formic-acid preserves honey and every other solution from fermentation.

* * *

The Globe, of Flint, Mich., thus mentions Mr. Hutchinson's new book on "The Production of Comb Honey :"

> The cover of the book is particularly attractive, being of board exactly the color of fine beeswax, and crumpled to imitate comb foundation. The *Globe* Printing House issued the work, and feels no backwardness in fathering the job, as it is the finest piece of typographical execution ever turned out of the office.

The printing is a credit to the craft, and we congratulate the *Globe* upon the job of work.

* * *

New Catalogues and Price-Lists are on our desk. Those desiring to obtain any of them should send to the addresses given —not to us. The following have arrived during the past week :

Earle Clickenger, Columbus, O.—1 page—Bee-Keepers' Supplies.

W. W. Bliss, Duarte, Calif.—14 pages—Bee-Keepers' Supplies.

S. Valentine & Sons, Hagerstown, Md.—36 pages—Albino and Italian Queens and Bees, and Apiarian Supplies.

Jos. W. Newlove, Columbus, O.—12 pages—Apiarian Supplies, Small Fruit, Plants, etc.

Simon P. Roddy, Mechanicstown, Md.—2 pages—Bees and Queens.

M. W. Shepherd, Rochester, O.—6 pages—Bees, Ferrets, etc.

Charles Stewart, Sammonsville, N. Y.—1 page—Apiarian Supplies. This is on the back of one of Martin's "Chromo" cards.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Bee-Space above the Sections.

Query, No. 400.—1. Will bees work in the sections as well with a bee-space above as with a close cover? 2. Would a bee-space prevent the use of so much propolis above the sections?—W. J., Tenn.

1. Nearly if not quite as well. 2. It will help greatly in my locality.—C. C. MILLER.

1. I think so. 2. The bee-space does protect against propolization.—A. J. COOK.

1. Yes, they will work better. 2. Certainly, it prevents so much propolizing.—JAMES HEDDON.

1. No. 2. The difference is small in either case.—C. W. DAYTON.

1. I prefer the close cover. 2. It does with me.—G. M. DOOLITTLE.

Quite as well, but it would not lessen the amount of propolis.—J. P. H. BROWN.

I prefer no bee-space above the sections, and I get no propolis on the tops of them.—H. D. CUTTING.

Yes, bees will work just as well with a bee-space between the sections and the cover, and the space will prevent propolis being placed upon the top-bars of the sections.—W. Z. HUTCHINSON.

I hardly think that it has anything to do with the working of the bees in the sections, but I could not be induced to have the bees crawling all over the bottoms of my hive covers when I lift them off. I shut the bees down at the tops of the cases with cotton or enameled cloth. This keeps the tops of the sections clean, and enables me during oppressively hot weather to wedge up the covers and admit air between the cloth and the cover, thus cooling the bees without permitting them to leave the apartments of the hive.—G. W. DEMAREE.

1. This is a question on which there is much dispute. I prefer continuous passage-ways; others do not, so every one must test for himself. In answering this question, I assume that it does not mean just what it says; for so far as I know, space above is only used when tiering. 2. I do not think any difference will be found.—J. E. POND.

1. Yes. 2. No; if you desire to keep the sections quite free from propolis you should use wide frames to hold 4 sections. With a suitable case they are the easiest to manipulate, and the most satisfactory in all respects. The first cost is a little more, but the saving of labor in the apiary by their use will soon over-balance their extra cost ten to one. It is my belief that we shall look in vain for a better system to handle sections.—G. L. TINKER.

There is probably but little difference, but that little is in favor of a bee-space.—THE EDITOR.

Amount of Honey Used by Bees.

Query, No. 401.—Do bees consume more honey when they have an occasional flight, than they do in continued cold weather—on the summer stands?—Arnold.

Yes, decidedly.—C. W. DAYTON.

They do not in this locality.—G. M. DOOLITTLE.

They consume the most in cold weather, unless occasional flights induce them to breed.—DADANT & SON.

Theoretically, no; for if it is warm enough to fly they do not consume as much to keep up animal heat.—H. D. CUTTING.

My experience is that they *do* consume more honey when they have frequent flights during an open, mild winter.—J. P. H. BROWN.

It depends upon how cold the weather may be, and also how much protection the bees may have. Well protected bees consume far less honey in confinement.—G. L. TINKER.

I have found that it is brood-rearing that requires large consumption of honey. My bees always come through in the best condition if they can fly out often, and I have never discovered that their stores are affected by frequent flights.—G. W. DEMAREE.

It depends something upon how cold. In steady weather, just cold enough to keep them from flying, they will consume less, probably, than in weather warm enough for them to fly, or than in very cold weather.—C. C. MILLER.

It depends. If the temperature is mild, but just so as to keep the bees quiet, yes. If subject to great extremes then it might be otherwise. I find when I keep my cellar at just about 45° Fahr., the bees eat the least.—A. J. COOK.

With me, bees have consumed the most honey in a long, cold winter. If there should be frequent flights, as the result of continued warm weather, there perhaps would be less stores consumed; but if it should be extremely cold between the flights, it might be otherwise.—W. Z. HUTCHINSON.

Repeated experiments in my own apiary (where I always winter the bees on the summer stands) prove that the warmer the winter the more stores there are consumed. The reason is obvious. Increased activity caused by heat, when great enough to induce flight, will of course cause a greater consumption of stores, than when quietude caused by cold prevails.—J. E. POND.

No, sir, if none is consumed in breeding, and these flights are not too frequent and extended. When bees exercise they live largely on bee-bread. Bees consume less honey in moderate winters of even temperature. Very low temperature arouses the bees to activity and increased consumption of honey, and later bee-bread, and then bee-diarrhea follows.—JAMES HEDDON.

No; unless they are breeding, when it is warm enough, for the "occasional flights."—THE EDITOR.

Building up Colonies in the Spring.

Query, No. 402.—What is the best and most feasible method for "building up" colonies in the spring, in time for the white clover honey harvest?—E. B., Ills.

By wintering them perfectly.—JAMES HEDDON.

By using warm packing.—C. W. DAYTON.

Feed enough to keep up breeding and keep the hive warm. Reduce or expand the brood-nest to suit the needs of the colony.—DADANT & SON.

Pack them up snugly so as to retain the warmth; see that there is food in abundance; "only this and nothing more."—W. Z. HUTCHINSON.

This is too large a matter for this place, but I think it has been fully treated in back numbers by G. M. Doolittle and others; also in the various books.—C. C. MILLER.

Slight stimulative feeding, Heddon notwithstanding, or to please Bro. Clarke, "in my opinion." Then equalize and get all colonies strong.—A. J. COOK.

If any bees go into winter with hives full of honey, so as to have plenty of stores in the spring, they will build themselves up if they are packed warm at the top of the brood-nest.—G. W. DEMAREE.

By systematic feeding, and giving frames of clean worker comb as fast as the number of bees will justify.—J. P. H. BROWN.

By the reversing of the brood-nest and spreading of the brood, as I have often given in the BEE JOURNAL. Experience is needed, however, in this matter to be successful.—G. M. DOOLITTLE.

It will require more data than is given, to tell. It will depend upon the size of the colony to start with. Some could not be built up so soon. My own plan is to draw frames of brood from strong colonies and give to the weak, as fast as they can be spared and cared for, being careful to see that all have plenty of stores both for consumption and for brood. I do not know of any better building-up process for any state of affairs.—J. E. POND.

See that they have sufficient food and are kept warm.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest: O~ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

The Building of Drone-Comb.

G. M. DOOLITTLE.

I have read with interest the various discussions of Mr. Hutchinson and others on the drone-comb question, and it seems to me that many do not fully understand the conditions under which it is built. The idea of no drone-comb does not lie in a small brood-chamber with a surplus arrangement above it, by any means, as many of the given reports show. My own experience also convinced me of this fact, years ago, when I among the first, if not *the* first, advocated a very small brood-chamber with the surplus arrangement put directly above it, to secure all worker-comb. When the conditions are right, worker-comb is just as apt to be built where no surplus arrangement is used as otherwise, and the only reason for using the surplus arrangement is in making the conditions more generally right than they are likely to be without it.

What are the right conditions for the building of worker-comb? Simply this: The right force of bees so that the queen can follow them in comb-building with her eggs, so that as soon as the cells of any comb are deep enough to receive an egg, a worker egg is laid therein. As long as these conditions exist only worker-comb is built, I care not how old or unprolific the queen is, or how prolific.

From the above it will be easily seen why a large colony with an unprolific queen builds mostly drone or store comb, and a small colony with a young prolific queen builds all worker comb.

That all may understand how to easily get worker-comb built, I will give the reader some of the experiments I have tried, and the grounds gone over, so that little by little I arrived at the truth regarding the above.

Among my first recollections of comb-building I found that, with a good queen and a large colony of bees placed in a 12-frame Gallup hive (giving 2,100 cubic inches of comb-space), the 9 central combs would be generally all worker-comb except the lower corners or parts of three or four of the outer ones, while the three outside ones and the parts noticed would generally be drone-comb. The outside sheets would generally be filled with honey, showing that these combs were built especially as store comb, while the corners mentioned would have drones in them, showing that only a small portion of this drone-comb was really built for the rearing of drones. Now while this large amount of drone-comb was of little harm the first year, yet during June of the next year the surplus honey in these combs was converted into drones to fill the combs, which drones, after being hatched, consumed quite a share of the honey gathered by the colony; thus making a serious thing of what was built for store comb. If the queen with the colony was an old or unprolific one, matters were still worse, as in this case one-half or more of all the comb in the hive would be of the drone size.

The above and the amount of honey stored in these outside combs caused me to cut my hive down to 9 frames, so as to obviate both difficulties; but I soon found that I had only remedied the latter, as I did not put on the boxes until the hive was two-thirds full of comb, for at that time all considered it an "unpardonable sin" to put boxes on when a swarm was hived, unless it was where two or more swarms were hived together, in which case the putting on of boxes would not influence the comb-building any, for there would still be a force of bees large enough to keep the comb far in advance of the queen.

I was almost ready to give up in despair (no comb foundation being in use at that time), when one day quite a small swarm came out with a queen only a year old. I was about to put them back, when I decided to hive them for increase, considering that the colony in the fall would be worth more than the honey they would obtain if returned; and in the hiving of this swarm I got my first real light on the drone-comb subject. I did not look at this colony for three weeks from the time it was hived, except to see that the combs were being built true in the frames; therefore imagine my joy to find the frames filled with comb (except a few inches at the bottom of the two outside combs), and every bit of it was worker comb, and filled with brood, except a few pounds of honey along the top-bar.

In a week or so I opened the hive again, expecting to find that the two outside frames had been finished down with worker-comb, but was disappointed, for it was drone-comb. I asked myself why, and soon reasoned out what I thought was correct, in believing that as soon as the young bees began to hatch—which they were doing when I first opened the hive—the queen had all the egg-laying she desired to do in the vacated cells, so no longer kept "hand in hand, as it were" with the bees, they built the rest for store comb.

The next year, to thoroughly prove my position, I hived a part of a large swarm which came out with an unprolific queen, in a hive containing but three frames. I took enough bees to just fill these three frames in three weeks, according to my best judgment, but got a few too many, as they had the three combs built in 17 days, the queen having a worker egg in every cell except a few at the top for pollen and honey. I now moved along the division-board and placed an empty frame between two of the others, and during the next four days this was filled a little over half full of worker-comb, which the queen occupied with eggs; but as soon as the young bees began to hatch, she only went over the vacated cells, which caused the rest of the frame to be filled with drone-comb. From this I took the cue which has controlled me in all my after work, and which is the father of what is known as the Hutchinson plan of getting worker-combs built in the brood-chamber while working for comb honey.

Without going over all the ground of my failures, and how I was led step by step along to perfect success, I will simply say that success is only obtained by getting such an amount of empty surplus room above, with the right size of brood-chamber below, that the bees build comb below only as fast as the queen occupies it with eggs, while there is room above for all their extra resource of wax and comb-building propensities. The reason why Mr. Hutchinson has been so eminently successful where others have failed, is because his observations have led him to more nearly comply with the above than have the less successful ones.

Before closing this article I must notice an item bearing directly upon this subject. I see it advised in a recent paper, by a would-be writer on the subject of apiculture, that an empty comb should be given a swarm at the time of hiving. In my younger years I tried this, and as a result I could get only drone-comb built in a colony so treated, and the same holds true in giving a comb of brood to a swarm to keep them from absconding, as advised by so many, especially if any of the brood in the comb is hatching so as to give the queen room to lay her eggs in this comb. Where much brood is hatching in a hive, or there is empty comb in the same, the only remedy for drone-comb is full sheets of foundation or frames of worker-comb.

Borodino, ⊙ N. Y.

Securing Good Prices for Honey.

WM. H. GRAVES.

I feel greatly interested in the discussion of the subject of "obtaining remunerative prices for our honey." To me it is of more importance than anything else connected with the business. The wintering problem has never burdened my mind to any extent, as my losses have always been light; but it is a subject of some concern to me to convert a nice lot of 4,000 or 5,000 pounds of honey into money, without selling it at a price below cost of production, thereby ruining future prices for other bee-keepers, and myself also. As any one who has been in "the business" any length of time knows, it is no easy matter to *raise* the price after having been reduced.

I have ever refrained from sending any honey to our large commercial centres; I have never shipped a pound of honey to a commission house. Not that I have any ill-feeling toward them, but because I thought I could do better to build up a trade nearer home. I may be mistaken, but my deductions from the present discussion in the BEE JOURNAL leads me to think that one of the principal factors in solving the problem is this: Ship less honey to the large cities; canvass your own neighborhood, keep your country towns well supplied at all times in honey put up in an attractive shape. In my experience in selling extracted honey in the country or country towns in small packages, I find that a package that can be utilized after the honey is used is far better than anything else for this purpose. I prefer quart and pint fruit-jars; also glass jelly-moulds.

Duncan,⊙ Ills.

For the American Bee Journal.

Honey-Jumbles—Bee-Legislation.

DR. C. C. MILLER.

In part reply to Mr. J. W. Parks' questions on page 139, I would say that I have never seen but one kind of honey-jumbles, and the one from whom I got them, I understand, has not been able to obtain from the manufacturers the recipe by which they are made. I think they cost about 11 cents per pound at wholesale, making about $5 per barrel. The first sample I had last summer. After lying for weeks in the open air, where ordinary jumbles or cookies would be dried and stale, these honey-jumbles were as fresh as ever. Not only were they nearly as good, but I could see no possible difference whatever.

During the past winter I have had some that were frozen. Whether the freezing made any difference I cannot say, but when kept in the kitchen cupboard, these have dried somewhat, in which condition they are not so good. Kept open, in a cool pantry, they become more moist, and if left in this condition long enough, they become too wet for pleasant eating. Kept in a covered tin-pail in either place, they undergo no change, or at least the change must be very gradual. After they have dried in the kitchen cupboard, if placed in the cool pantry, they become moist and as fresh as ever again. Whether too moist or too dry they never appear to have an old taste. There is certainly something remarkable about their keeping qualities, and grocers acquainted with them will keep them in preference to other things of the kind, just because they will not grow old on their hands.

As to their eating qualities, as in everything else, tastes differ. I think, however, that most persons would consider them a very nice article to put on the table for even a company tea. I am very found of them. If warmed in the oven just before being placed on the table, I think no one could tell that they were not fresh baked. If honey is used to any extent in their manufacture, I think it would be to the interest of bee-keepers to encourage their use.

LEGISLATION FOR BEE-KEEPERS.

In my article on page 199, I have given my promise to argue no further the desirability of legislation. Since that article was written, two writers have argued the matter on the opposite side in this paper. As I have promised to keep my mouth shut, it is the proper thing for me to shake my fist at them and boastingly tell them how I would have chewed them all up into little bits, if I hadn't promised to let them alone. Seriously, I do not think it would be difficult to controvert their views, but I am not very sorry I made the promise, for there is enough of the coward in me to make me glad to get out of a fight, and you know,

> "He that fights and runs away
> Will live to fight another day;
> But he that is in battle slain,
> Will never live to fight again."

My thanks are due Mr. Heddon for the manly way in which he has surrendered. It is no discredit to him as a disputant, for the simple reason that I had the easiest side to work on.

At Indianapolis, Mr. N. N. Betsinger made a—I am not sure whether it was a threat or a promise, in either case it was good natured—that he would give in print the hardest blows he knew how to give, against the desirability of legislation. I was surprised that he should keep silent so long, but was still more surprised when he did speak, to find that he—the *only* one who said he would fight me—should be the only one to come out and strike some sturdy blows on my side.

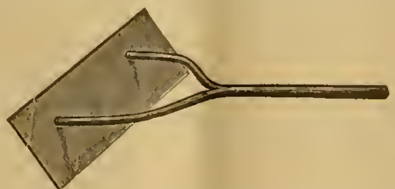
Marengo,♂ Ills.

For the American Bee Journal.

Scraper for Cleaning Hives, etc.

I. W. ROLLINS.

The accompanying illustration represents a "scraper" for cleaning hives, frames, bottom-boards and sections. A blacksmith made the one I use, with my directions. The following description shows how it is made:



Take a piece of steel as thick as a heavy butcher-knife, 3½ inches long, 1¼ or 1½ inches wide; punch or drill holes ½ inch from each end, and ½ inch from one edge. These holes should be about ⅜ inch, or a little less. The handle should be about 6 inches long, direct measure, 3½ inches at the end solid, and the part next to the blade split and brought around in a bow, entering the holes in the blade and riveted solid. The handle should be set so as to give the blade a little pitch, something like a hoe. Now sharpen the wide edge and each end. In use, the fore-finger can be inserted in the bow of the handle.

For the American Bee Journal.

Pan-Handle Bee-Keepers' Convention.

The Pan-Handle Bee-Keepers' Association held its second meeting on March 3 and 4, 1887, in Wheeling, W. Va. The officers of the association are as follows:

President, Henry Leweday, of Wheeling; Vice-Presidents, John A. Buchanan, Phil Tisher, H. J. Shriver, and L. C. Seabright; Secretary, W. L. Kinsey, Blaine, O.; and Treasurer, August Geotze, Wheeling.

President Leweday delivered his address, after which the Secretary read a constitution and by-laws, which was adopted.

The first question discussed was,

ESSENTIALS TO SUCCESS.

J. A. Buchanan said he believed that to become a successful bee-keeper it was necessary that certain qualifications must be inherent in the would-be apiarist; he must have a great fondness for the pursuit; such love and appreciation of the beauties of nature as will lead him to become interested in the mysteries connected with a colony of bees; he must be naturally patient, persevering and energetic. Order and system go hand in hand in this pursuit. Sloven or laggard persons need not attempt bee-keeping. Promptness to do the right thing at the right time is the key-note to success in bee-keeping.

W. S. Taggart, of Barton, said in regard to the essential qualities of a bee-keeper, that any person of good common-sense could obtain the knowledge of bee-keeping mechanically, the same as some learn music, a trade, or any other business. Bee-keeping can be imitated the same as any other business; all it requires to be a bee-keeper is to read, think, and then add practical work to thought.

BEST LOCATION FOR AN APIARY.

John A. Buchanan said: From my experience I would prefer a location well upon the sunny side of a hill, as the higher altitudes give a more even temperature. Cold air, being heavier than warm air, sinks to the valleys where there is apt to be a greater degree of dampness. I have an apiary in a valley, and one on a hill; in the spring of the year when bees are weak and need the most favorable condition to enable them to keep the greatest possible amount of brood warm, it is then that I find my hill apiary rapidly out-stripping the bees in the valley. If bee-keeping alone was the only object in view in selecting a sight, I would only locate in such places as would show by the flora of the surrounding fields to be specially adapted to the producing of honey. It might be well to look a little after the markets of the place. I should want to have my honey produced within easy marketable distance of a number of towns and villages, with not too much opposition.

C. E. Ketter remarked that in his region (Monroe Co., Ohio), about half way up the hills, is the best locality, on account of its being above the fog in the morning, and that the bees have down hill to carry honey instead of carrying all the honey uphill, where the apiary is located on top of a hill. By locating the apiary half-way up a hill the bees are more sheltered from storms.

On the second day the convention discussed the subject of "Prevention of Swarming."

C. E. Ketter—I have never had any success in repressing swarming.

P. Tisher—Bees will not swarm so long as they have unfinished combs between the brood-nest and the entrance.

A committee was appointed to wait upon the State Fair Association of West Virginia, to make arrangements in regard to premiums for apicultural exhibits at the next Fair. The committee consisted of Henry Leweday, L. C. Seabright, and W. L. Kinsey.

An essay was read by L. C. Seabright on "Spring treatment of bees."

The convention then adjourned to meet at Wheeling, W. Va., on Oct. 26 and 27, 1887. W. L. Kinsey, *Sec.*

For the American Bee Journal.

Regulating the Price of Honey.

JAMES HEDDON.

It is amusing to notice the "tanglement" and confusion many are in regarding the "survival of the fittest," "priority of location," "special legislation for bee-keepers," and the "proposed honey-producers' association." Some one attempts to combat Dr. Miller and misses his propositions and hits some one else. Another strikes a supposed death-blow at Mr. Baldridge, and only hits Dr. Miller a faint "tick;" and so it goes.

On page 181 Mr. Doolittle brings in a new feature to the problem, viz: charity. Well, I admire this turn, for I see no other way out, and, besides, every good man really should and does feel happy to think that if lose he must, some poor person is gaining as much.

While I consider it no argument, and entirely out of place here *as* an argument, I had many times thought that I would resume my old practice of retailing at home at wholesale prices, undergoing the extra labor involved by so doing, for the benefit of neighbors and the relief of the city markets.

My object in beginning this article was to correct the idea that we who desired a meeting, expected or desired to "corner" the honey market, and starve the consumer. We do not expect to destroy the natural channels of trade, but simply to regulate them and endeavor to keep others from turning them out of their natural and proper course. I am not going to bind myself to let some appointed person sell my product, or tell me what I shall take for it—no, nothing of the sort. I want to meet bee-keepers to discuss the best ways and means of disposing of our crop; just the same as we meet to discuss the "how" of production.

I believe that such a meeting and its report will create a world-wide sentiment, based upon truth, and one which will be of lasting benefit to both producers and consumers. Let us meet and discuss all the questions relating to whether it is better to produce more or less comb honey; what styles of packages are best; how we should grade it; how to work up the home market, and how to dispose of it in city markets; whether or not it pays to have all the honey "gilt-edge;" how to equalize prices over the whole country when the same grades are offered; what is the best style of shipping-crate, and—why, about how much it costs to produce honey the country over; and all these things that will help the producer to more correctly "make up his slate" in advance.

Let us see that the children of the poor have their honey at as low a price in one location as in another, allowing for transportation. It does not aid these children to have the prices raised by passing our honey through the hands of too many middle-men. Any subject that is so vital to our interests as this—one that can find so much room in such a bee-paper—must surely be worthy of *one* special convention! Do you not think so, reader?

Dowagiac, Mich.

For the American Bee Journal.

Some Proofs that Bees do Hear.

J. W. BAYARD.

The question as to whether bees have the sense of hearing, being one of secondary importance to bee-keepers, has attracted very little attention or discussion through the bee-papers. Some years ago the Bee Journal published some tests, made by Sir John Lubbock, an English scientist, which had the merit of ingenuity and simplicity combined, but otherwise were extremely superficial and unsatisfactory.

About the year 1870, the late Mr. Adam Grimm, of Wisconsin, was one of the largest queen-breeders in America, importing his original stock from the Alps of Italy, claiming for them great superiority over queens obtained from the low country in the South, and as being more vigorous and hardy. I then gave him a trial order for 15 queens, and as a matter of convenience to us both, he sent them in installments of 3 or 4 at a time. One morning in the month of August I received by express a package containing 3 queen-cages, replete with queens and bees. (Cages in use then were six times as large as our modern cages that are sent by mail.) I opened the package carefully, placing the cages some 8 or 10 inches apart on a table. I turned to look after something in another part of the room, when to my utter astonishment I heard the loud piping of queens from all three of the cages, and hastening to the spot, I found a regular colloquy in progress, not all speaking at once, but calling and answering, back and forth, with much regularity and great vigor as a challenge to mortal combat. Soon after the queens concluded their part of the programme, the bees in all the cages set up their ever familiar zee, zee, zee! as a *finale* to the performance.

I will venture the opinion that the most obtuse apiarist in all the land has recognized a well defined and expressive language among bees, such as rage, joy, defiance and contentment, as well as a call for help or an appeal for mercy. No longer ago than last June, I released a queen from her cage to a hybrid colony about dark; early the next morning I made an examination and found her "balled" by a small knot of bees. Upon releasing her from their grip, she darted over the combs, and when attacked by other bees she fairly screamed for mercy or help. On taking her from the hive I found her wings and one foot badly mutilated. In all my experience I find where queens are balled for destruction, they make these pathetic appeals to their captors, but they are seldom, if ever, heeded.

Not so with worker bees when they get into limbo; when squeezed by the manipulator in handling their combs, and call for help, the response comes quickly, and very often with a vengeance, as I have many objective lessons long to be remembered. That bees manifest no symptoms of alarm or fear at any outside noise or racket, is only proof of their indomitable pluck and courage to defend all that comprises their home and perpetuates their existence. They live in a noise all through their lives, created and perpetuated by themselves, hence they pay little attention to the uproarious clatter from day to day, whether artificial or natural, that is going on around them.

Athens, Ohio.

Read at the Fremont Progressive Convention.

The Production of Comb Honey.

GEO. E. HILTON.

As I have made the production of comb honey a success for the past eight years, a review of what I consider the best methods may be of value the coming season. I trust it may present to some new ideas whereby they can increase their profits in this our chosen pursuit.

The first and the most important factor is a full hive of bees at the commencement of the honey-flow. And here an essay of interest could be written on spring management. This question is often asked: "When is the proper time to put on the surplus cases?" The majority of the bee-books say, as soon as little bits of new comb are seen being built along the top-bars of the brood-frames. My answer is, as soon as the surplus season opens; in this latitude it is at the opening of the blackberry and raspberry blossoms, followed closely by the white clover, which is our main source. Previous to this the crates should all be prepared with sections filled with full sheets of thin foundation. The bee-keeper should also be provided with a zinc queen-excluding honey-board. I like these the size of the surplus-crate. This avoids all propolizing and snapping and cracking of crates in taking off, and all brace-combs from being built from the under side of the sections to the top of the brood-frames.

With me, there is no time looked forward to with more interest than the putting on of the surplus-crates; neither is there a time when the apiarist should exercise better judgment. Approaching a hive, I examine it closely, and if up to the standard, namely, well filled with brood and working bees, I remove all bits of comb from the top-bars, lay on the zinc queen-excluding honey-board, and put on one crate containing 28, 4¼x4¼x1¾ sections. All things considered, I think this size the best.

Perhaps the next colony I approach, I have not been able to build up to the standard. This I leave until I find another not up to the standard. I remove the best combs of brood and young bees (being careful not to take the queen), remove the four combs containing the least brood from No. 1, and change places with them, using judgment in making up the brood-nest, keeping the brood in the centre of the weak colony, and the combs containing the least brood in the centre of the now strong colony. I proceed as before, and put on the surplus arrangement, and out of the 2 weak colonies I have one ready for the honey-flow; and my experience is that more honey is received, and of a better quality from this one than would be received from the 2, if left to build up during the honey-flow; besides, the trouble of going over the apiary so many times as required in the bit of comb plan, is saved.

I will now consider the apiary supplied with surplus arrangements, and that the bees are well at work in the sections, and the busy season is on hand. The sections must now be watched closely, and as fast as the crates are about two-thirds full of honey, raise them up and put an empty one, arranged as the first, under it; this leaves a space to be filled with combs and honey between the brood-nest and the partially-filled crate on top. This is just as the bees do not want it, and, as a rule, just as they are coming to a point where the swarming-fever is liable to overtake them, they find this great hole in their midst, and it is surprising how they will double their energies to fill this cavity; at the same time they will be finishing the upper crate.

It is my custom at this stage of the proceedings to go over the apiary every week. My crates are so arranged that I can draw out all the finished sections, replacing with empty ones, keeping the crate containing the least honey at the bottom, and the one nearest completion, at the top. This prevents the bees running over the finished sections, and removing it as fast as finished, gives it its virgin whiteness.

This system largely does away with the swarming-impulse just at the height of the honey-flow; but occasionally a swarm will issue in spite of everything. In this case what shall be done to prevent the cessation of honey-storing in the surplus department? My plan is as follows:

As soon as the swarm has left the parent hive, take off the surplus arrangements, lift out all but one comb and carry them to a new stand. Put in from 4 to 6 empty frames, according to the size of the swarm, filling the rest of the brood-chamber with a division-board, put on the zinc honey-board and surplus cases just removed, and close the hive. I proceed with a basket and shake the swarm from their alighting place into it, and dump them in front of the hive whence they came. I watch them closely until I am sure I have the queen, and the work is done. The remaining bees at the alighting-place, as soon as they discover the absence of the queen, will return to the old stand; so will the field bees remaining on the 7 combs that have been carried to the new stand, and all the bees in the fields returning home gives the same working-force as before. The desire for swarming is satisfied, and the work in the sections goes on as though nothing had happened. The 7 combs have plenty of nurse-bees to care for the larvæ in them, and at the same time they are so depleted in old bees that they very seldom send out a second swarm.

I want to say just a little in regard to the handling and disposing of comb honey. I have bought considerable honey at different times to sell again, and invariably I have been obliged to go over the whole lot and clean up the sections. I am sorry to say that honey is a luxury and not a staple at the present time. In times of taking off honey, have the good wife or sister, or some good, careful girl, at the honey-house with a knife or piece of glass, and have her carefully remove all the propolis and bad stains that may appear on the sections; put them away—the best on one shelf, and the second grade on another, with a sheet of paper between every two tiers to catch any drippings that may occur, as the honey stains the wood, and the nearer "gilt-edge" we keep our product the more we shall realize for the same.

In packing for shipment, I find no crate giving as general satisfaction as one holding 14 or 16 of these sections. Glassed at each end, they range in weight from 12 to 15 pounds; they stand shipment well, either by freight or express, and the retailer frequently sells a whole crate to a single customer.

I cannot urge too strongly the use of the zinc queen-excluding honey-board. I consider it one of the grandest inventions of the age—no brood in the sections, no fastening the sections, crate and all to the brood-frames, thus tearing off the bottom of the sections, or lifting the brood-frames out by their adhering to the crate; in fact, with the experience I have had with them, I would as soon think of putting on sections without foundation starters as to think of putting on a crate without a queen-excluding honey-board.

Fremont, Mich.

For the American Bee Journal.

Management while Extracting.

J. J. WALLER.

My experience in bee-keeping extends almost as far back as my recollection, but it has been only a few years since I first began to keep bees on improved principles. The first extracting of honey that I ever witnessed, was by a neighbor who used what I now consider a very imperfect machine. Instead of having a revolving comb basket, the whole can turned, and the honey ran out as it was extracted. Previous to this I had read "Langstroth on the Honey-Bee," and perhaps two or three other works on bee-keeping, but my first *practical* lessons were taken from this neighbor.

I do not know that I have learned and adopted the best ways, but upon the subject of which I now write, I am pretty sure that for me my plan is the best; and yet with all the subjects discussed in the bee-papers, I do not now remember to have seen this more than mentioned. I do not doubt but that my plan is an old one to most bee-keepers, and it may be that it will provoke a smile from experts in our calling. I believe, however, that in giving my experience I may do good in leading others to a better way.

The practice of most bee-keepers, so far as I have seen and read, is to go to the hives as they stand in the apiary, and remove the combs to be extracted from, taking them into the honey-house or some other place for working them. I find several objections to this arrangement, and the principal one is, that at nearly all times robber bees are troublesome. We all know how it enrages bees to have robbers with their peculiar noise, prying into a hive from the top, it matters not how careful we are to subdue the bees of the hive opened. I know that some will say that we ought not to extract when robber bees are troublesome, but I find they are very bad most of the time, and somewhat so all the time. At the beginning of extracting last summer, I examined two of my best Italian colonies, and from each I got six stings in the face!

In a late number of the BEE JOURNAL, Mr. McNeill explains how he makes and uses his bee-tent, or screen-house, and intimates objections to Mr. Heddon's make of the same, one of which is that on account of its weight the hives have to be carried to it for manipulation. Now, to me this is no objection, but there are other objections to any screen-house which render them impracticable to many bee-keepers.

In lieu of bee-tents and screen-houses, I have built a room for extracting purposes which I find to be very convenient on other occasions also. By the side of my meat-house, which is very tall, I built a shed room 8x10 feet. I have a bench made of a dressed 12-inch board extending the full length of the room to the left as it is entered, and just right to work on without stooping. In one end is a window, and in the other the door.

I find this room to be comfortable, and as there is no floor except the ground, there is no trouble climbing steps. When extracting I simply carry a hive (after smoking the bees a little) into this room, and close the door and window, and place at the old stand an empty hive, except that it has a frame of empty comb. The bees returning from work will collect on this comb, and after returning the hive with bees it is but little trouble to shake them off and let them return to their proper home. All the the bees that take wing while working a hive, will collect on the window, and there remain until released, unless the window is arranged to let them pass out; but as I would rather they were in the window than in the decoy hive, I let them remain until their own hive is returned to its stand.

One great advantage in this over out-door manipulation, is that one is not compelled to be forever stooping, as the hive can be raised to any height without extra trouble. Another great advantage is, there are no robber bees to bother, and if a few bees do get angry and take wing, they very soon take to the window and are trapped.

I suppose many would object to the above plan because of the labor necessary in carrying the hives to and from the place of work; but if the house is built in a convenient place, close to the bees, I do not think the labor as great as if they are worked at their stands in the apiary.

I would be glad to see this subject discussed (either *pro* or *con*) by some of our experienced bee-keepers, such, for instance, as those whose names appear in the Query Department of the BEE JOURNAL.

Pleasure Ridge Park,♂ Ky.

For the American Bee Journal.

Shaking Queen-Cages in Transit.

GUST. MURHARD.

I wish to draw the attention of bee-keepers who feel interested therein, to the abuse committed by inquisitive clerks in the post-office and express-office on the queen-cages with queen-bees while in transit. There is hardly a queen-bee shipped to Oregon which has not to stand hard shaking of inquisitive clerks to satisfy their curiosity whether the bees are alive or dead; and as bees that have traveled a long distance, and have become used to shaking so that they will not answer the shaking call by buzzing, if they are alive or dead, they are shaken so much more violently, and if they then refuse to respond, the clerks' curiosity will even go so far as to use their pocket-knives to break open one corner of the larger cages, before they will desist.

I have noticed that every queen's fertility through this shaking curiosity is more or less injured in transit; but that the queens in smaller cages suffer the most, is reasonable. Would it not be well, if it can be done with any prospect to discontinue this injurious nuisance of inquisitive clerks, to apply to headquarters of the Post-office Department, and of the express companies' officers, to forbid clerks shaking any queen-cages with queen-bees while in transit?

Often are bees thus injured, and if upon their arrival they do not prove what was represented, the shippers are unjustly charged with dishonesty. Nearly every queen that I received personally out of the post-office or express-office, I found the clerks shaking the cage at the time of my arrival there; and if not they would surely commence shaking violently as they handed the cage to me. It is not as well bad intention as inquisitive ignorance, which commits the harm. If those clerks could be shown the harm that their inquisitive ignorance does, perhaps this nuisance might be abated without trouble or ill-feeling.

Portland,∽ Oreg.

Farm, Stock and Home.

April Work in the Apiary.

E. W. POWELL & SON.

As it is nearing the time to take bees out of the cellar, a short article perhaps will not come amiss on that subject. We do not take our bees out until April 10 or 15, if we can help it (I mean if we can keep them quiet). If we lose control of the temperature of the cellar, or if from any other cause the bees become diseased, we are compelled to take them out as soon as the snow is gone; but even then, I am not sure but the best way would be to let them have a good flight and then return them to the cellar until settled warm weather has come.

Before commencing to take the bees from the cellar, we provide ourselves with a litter, by fastening two small poles together with two cross-pieces, having the poles long enough to receive four hives at a time. We commence taking the bees out about four o'clock in the afternoon, two men taking four hives at a time. In this way the bees are carried steady and without a jar. We carry out as many in one evening as our backs will allow, and often get up early and take out some more before it is light the next morning. We take them out in this way to prevent the bees from swarming and mixing up, which they will do sometimes if taken out in the morning of a bright day.

As soon as the bees are out of their winter quarters, they must be examined, their hives cleaned out, etc. We have a long box which we put on a spring wheelbarrow, in which to carry empty combs, scraps of comb, and our tools, which consist of a smoker, a knife to prune the combs with, a chisel to loosen the frames, and sometimes the bee-veil, though usually we have this last article over the face when we start.

We now commence at one end of the first row of hives, examining each one in succession, cleaning out the dead bees, if there are any, and supply honey to any that are in need, from those that can spare it. We give each colony just what combs they need for immediate use, using a division-board to close up the space to just the room they can use during the cold nights of spring. The empty combs we place outside of the division-board; those containing a little honey are carried to the honey-room until they are needed. We make a careful record of the condition of each colony, the number of frames they occupy, the amount of brood and honey contained, etc.; then, after packing snug and warm, the bees are not disturbed again for two or three weeks, or until they have filled all their combs with brood, when more room is given.

Mankato,♀ Minn.

For the American Bee Journal.

The Guelph, Ontario, Convention.

WM. F. CLARKE.

On March 23, 1887, the Guelph Bee-Keepers' Association met in the Council Chamber at Guelph, Ont., at 1 p.m., the President, Rev. W. F. Clarke, in the chair. The Secretary read the minutes of the last meeting, which, on motion, were confirmed. Then followed the

PRESIDENT'S ADDRESS.

Fellow Bee-Keepers:—We meet near the close of a winter, which, though a long one, has not been altogether unfavorable for bees, and it is to be hoped that a few days will bring the welcome disclosure that our losses have been slight. Last season was an unpropitious one in this locality for honey-production, and, as we are not apt to have two bad years in succession, we may look forward to the coming summer as one in which nectar will abound, and our industrious little workers gather plentifully both for themselves and us.

At the present time, there are several matters of interest and importance pressing on the attention of bee-keepers. One is the low price of honey. Honey is cheap and likely to remain so. It has been proposed to form honey producers' associations to regulate the market price of honey. I do not think this course would have the desired effect. No wheat growers' association could fix the price of wheat. No cheese or butter association could fix the price of dairy products. The law of supply and demand will ultimately control these matters, in spite of all our devices. All we can do is to cheapen the production of honey by adopting the best labor-saving devices in our apiaries; offer only a first-class article for sale, and so get the best price going; spread information concerning the value of honey as food and medicine; set ourselves to develop a local market, by exciting a home demand; and, above all, avail ourselves of that British mart, which, through the enterprise of the Ontario Government, and the labors of our commissioners has been proved to be readily accessible to us.

Another matter of special interest to us is the rights of bee-keepers as involved in the recent suit of McIntosh *vs.* Harrison. This case went against the bee-keeper. His bees were declared a nuisance, and the court granted an injunction against their being kept in close proximity to the blacksmith shop of his neighbor. This lawsuit undeniably grew out of a quarrel between neighbors. The bees had been kept near the blacksmith shop for years, and would have been kept there still, without objection, but for an unhappy dispute about a pig-pen. It would have paid Harrison to have cleaned out the pig-pen himself, and sprinkled plenty of deodorizing matter around it, rather than go to law. An expense of about $1,000 has been incurred by the litigants—$300 for the plaintiff, and $700 for the defendant. The plaintiff has got what he wanted at a high cost, and is probably as sorry as the defendant that the matter ever went into court. This case decides nothing as to bee-keeping in general. Bees may be a nuisance kept close to a blacksmith shop, where sweaty horses are apt to get a sting now and then, but this does not prove that they are a nuisance everywhere within corporation limits.

It is thought by some that we must have special legislation to define the rights of bee-keepers. If so, the sooner it is attended to the better. But, perhaps it might be as well to "let sleeping dogs lie." The common-sense and good-feeling of the general public may be counted on to put up with a little temporary annoyance, rather than injure one of the rising industries of our country—that to which we are indebted for the most luscious condiment that can tickle a human palate. People, in general, are forbearing. Witness the extent to which the dog nuisance is tolerated, though "dogs delight to bark and bite," kill a great many valuable sheep, and occasionally cause the death of human beings by that terrible disease, hydrophobia. My voice is not for war over the Harrison suit. It would never have been instituted, but as the result of ill-feeling, which ought not to have come into existence.

Priority of location is another matter which is attracting much attention among bee-keepers. It is proposed by some to pass a law securing to the first comer as a bee-keeper into a neighborhood, the exclusive ownership of the bee-forage within certain limits. As well might you give the first village store-keeper exclusive right of trade until the population reaches a certain number, and so on with the first blacksmith, the first shoemaker, and the first preacher. One man may want the whole loaf to himself, and another feel that half a loaf is better than no bread. They must "catch as catch can," and settle the matter as best they may. We now have too much legislation, and consequently too much litigation. It is good foy the lawyers, but bad for the common people. We do want more legislation of a higher kind. The golden rule and the law of love have only to be carried out to end all the faction fights between capital and labor, and this is amply sufficient to regulate the relations and locations of bee-keepers; otherwise we must bow to that inexorable law of nature which provides for the "survival of the fittest."

A long and interesting discussion followed, mainly in regard to the best means of securing the British market for our surplus honey product. The following resolutions were then passed:

Resolved, That this association is of the opinion that in order to render permanent the good results of last year's honey-exhibit in England, it is desirable that Canadian bee-keepers co-operate in making as large a consignment as possible the coming year; and that the Ontario Bee-Keepers' Association be requested to appoint a commissioner to go ahead of the consignment and make sales, it being understood that the Government grant be a guarantee fund for the one commissioner as it was for the four last year, and that after deducting such expenses as the grant does not cover, there be a dividend, share and share alike among the consignors; also, in case this is done, the members of this association engage, season permitting, to supply at least 10,000 pounds of honey, all such honey to be duly inspected before acceptance for shipment.

Resolved, That we consider the directors of the Ontario Bee-Keepers' Association are in duty bound to lay before the bee-keepers of this country a financial statement relative to the Canadian honey-exhibit in England last year.

Resolved, That the Secretary be directed to send a copy of the foregoing resolutions to the President of the Ontario Bee-Keepers' Association, and that the President of this association and Mr. R. F. Holtermann represent this association at the meeting of directors, that may be called to consider this matter.

Resolved, That agricultural societies be respectfully requested to appoint no parties as judges of honey and apiarian supplies except those who have had experience as bee-keepers.

Mr. R. F. Holtermann then read a brief essay on "Manipulation and Mutilation," pointing out the evils of a too frequent disturbance of the brood-nest. The essay was discussed at some length.

The thanks of the convention were, on motion, voted to the Mayor and corporation for the use of the Council Chamber; also to the President for his address, and to Mr. R. F. Holtermann for his essay.

The convention then adjourned to meet on Thursday, Sept. 1, 1887, in Guelph, at 10 a.m.

Guelph, Ont.

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 9.—Union, at Dexter, Iowa.
J. E. Pryor, Sec., Dexter, Iowa.

Apr. 12.—Stark County, at Canton, Ohio.
Mark Thomson, Sec., Canton, O.

Apr. 14.—Eastern Indiana, at Richmond. Ind.
M. G. Reynolds, Sec., Williamsburg, Ind.

Apr. 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Apr. 20.—Wabash County, at N. Manchester, Ind.
Aaron Singer, Sec., Wabash, Ind.

Apr. 20.—Southern Illinois, at Benton, Ills.
F. H. Kennedy, Sec., DuQuoin, Ills.

Apr. 26.—Central Michigan, at Lansing, Mich.
J. Ashworth, Pres., Lansing, Mich.

Apr. 26.—DesMoines Co., at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 5.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Disastrous Weather for Bees.—E. F. Smith, Smyrna,⊙ N. Y., on March 24, 1887, says:

My bees are in bad condition, and have had no flights since the first week in November—142 days. March has been colder than February. We had a regular blizzard from the north-west on March 22, and there is a great depth of snow. Unless we have a change soon, there will be very few bees left in this region; some have already lost all, and others one-half or more.

Two Colonies in a Hive.—W. Mason, Fillmore,+o Ind., on March 28, 1887, writes:

On page 59 I promised to report my experience in wintering two or more colonies in one hive. Now that winter is past I can say that I see no benefit in the plan for wintering. I do not think they will make as good a showing as single colonies; yet my test was not a fair one. The last of January we had a few warm days with the temperature up to 60° above zero in the bee-house; the bees became excited, leaving the hives and getting down on the floor, thus leaving several colonies weak. I was away from home at the time, but returned the day it became cooler; seeing the situation, and finding the temperature still at 62°, I resorted to putting in ice until the bees became quiet, but too late to save my bees from loss, which may be at the cost of several colonies. So the test is not a fair one. But I learned that bees will not remain quiet in as high a temperature for me as some have claimed. They are the most quiet for me at from 35° to 40°, and fairly quiet up to 50°; but above that they get restless. Our winter since Jan. 20 has been mild; there has been quite a loss among colonies that were hived late last fall, but the strong colonies have come through all right.

Samson's First Colony of Bees.—N. W. Afflerbaugh, Cameron,⊙ Nebr., sends this "old, old story" of 3,000 years ago:

Samson went down to Timnath and saw a woman in Timnath of the daughters of the Philistines, and when he came back he told his father and mother, and said: I have seen a woman in Timnath that I love; and Samson said unto his father and mother, get her for me, for she pleaseth me well; then went Samson down, and his father and mother to Timnath, and came to the vineyards of Timnath, and behold a young lion roared against him, and Samson killed him, and he went and talked with the woman, and she pleased Samson well. After a time he returned to take her for his wife; on his way he stopped to behold the carcass of the lion, and in it he found a colony of bees and honey; and he took thereof in his hand, and began to eat, and coming to his father and mother, gave some to them to eat. Samson had a marriage feast, with honey for supper 1141 years before the Christian era—over three thousand years ago.

No Loss for Four Winters.—Abner Brown, Lansing,♀ Mich., on March 25, 1887, says:

Last fall I prepared 5 colonies of bees for winter, and have now taken them out, and find all in excellent condition—no signs of disease, and with plenty of stores. This is the fourth winter that I have saved all the bees that I put up the previous fall.

Sweet-Clover Fiber for Cordage.—C. H. Dibbern, Milan,⊸ Ills., writes:

I am pleased to notice, Mr. Editor, that yourself and the cordage company seem to be interested in the matter of utilizing the sweet clover fibers mentioned on page 203. My attention was first attracted by passing my piece of about two acres of the dry stalks of sweet clover, and seeing the fiber wave in the wind. I broke off a few stalks and secured the sample I sent you. I should judge that the stalks contain about as much of the fiber as the ordinary hemp, and and very much like it. I would gladly send on a bale of several hundred pounds, as requested, but to secure that amount by hand is a job I do not covet. It is quite likely that the fiber is now somewhat injured by exposure through the winter. The object I had in view was to call attention to the possible value of sweet clover as a fiber-producing plant, and hope that those having a knowledge of the proper treatment of hemp, and machinery for handling it, will take it up.

Building a Bee-Cellar.—J. H. Stanford, Cherokee,⊸ Iowa, asks the following questions:

I want to build a bee-cellar the coming summer. 1. How large should the room be to hold 75 colonies? 2. Would you ventilate it with tile? If so, how deep would you lay it? How long? and what size? 3. How high should the walls of the cellar be? 4. How many windows? 5. Is a cement floor the best? 6. Is it best to run water through the cellar? 7. Would you build an outside stairway? 8. Is it best to lath and plaster the joists overhead or ceil it with pine flooring? Bees have wintered well so far. I put out 3 colonies, but it was too cold for them to fly.

[1. Two hundred square feet or more, somewhat depending upon the size of the hives.

2. I would ventilate the cellar with tile, and I am trying hard to find out just how. At present I should say 6 to 10 inch tile, not less than 5 feet to the bottom of the drain, and *not less* than 150 feet long. Probably this would ventilate a larger cellar.

3. Seven feet is a good height.

4. One is probably enough.

5. I have used a cement floor in one cellar, and I doubt if it is of any advantage.

6. I have had no experience. If you can easily try it, do so, and report the result both with and without.

7. By all means, if possible.

8. Lath and plaster, I think.—C. C. Miller.]

Fearing Chilled Brood.—W. H. Martin, Falls City,⊸ Nebr., on March 29, 1887, says:

It has been cold here for more than a week, and I fear that chilled brood will be the result. A swarm of bees was found on March 1 clustered on a hedge-fence near this place. One young man said he could tell the reason why; they were in a rented hive, and had to move out!

The Prospects in Kentucky.—J. J. Waller, Pleasure Ridge Park,♂ Ky., on March 25, 1887, writes:

I reported last summer that my bees were gathering "honey-dew" from the black walnut leaves, and promised to report further concerning the outcome. That "honey-flow" did not last long, as we had a very hard wind and rain storm which destroyed the most of the little insects, which Prof. Cook said (and I do not doubt its truth) produced the sweet substance. My bees, however, gathered it so freely while it lasted, that about one-half of their winter stores consisted of it; and I had fears as to its healthfulness for winter use, but I am glad to say that so far as I can see, it had no injurious effect whatever. I have lost but 2 colonies of bees out of 65, and I think that they were overcome by cold, on account of the way they clustered on their combs. We certainly had an easy winter on bees in Kentucky. I think the mercury only on two occasions was below zero, and then only a few degrees; yet I do not remember to have ever seen as thick *pure* ice. My opinion is that bees have generally wintered well in this part of the country, and now if we knew how to successfully control swarming, I think we could look forward with bright hopes to a large honey crop.

Cheap Production of Honey.—E. Sandford, Nokomis,⊙ Ills., on March 24, 1887, writes:

I do not see why there is so much complaining about the price of comb honey when compared to other things. I think that if some bee-keepers would supply their families from the market instead of from their own apiaries, they would find that the same money would go much further in buying something that would answer about the same purpose. I think their undivided attention should be turned to cheap production.

Results of the Winter, etc.—J. A. Reeds, Hinesboro,○+ Ills., on March 30, 1887, writes:

My bees have wintered apparently all right. I did not lose a single colony out of 130 in the cellar; but they are dwindling away during this cold weather; some colonies are getting very weak. I helped a neighbor put his bees out of the cellar; he had 70 colonies, and all were alive. I hear of many bees dying that were left out unprotected during the winter. I had 100 colonies last year, which I worked for honey, and they stored 6,300 pounds of comb and extracted honey. The clover seems to be frozen out pretty badly here. I do not expect as good a flow of honey this year as we had last.

Plant Alsike Clover.

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. It should be scattered at once into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents; 100 for 50 cents; 500 for $2.25—all postpaid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4¼ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—Sales have been larger this month than at any time since November, and prices average a little lower for comb than the above.

BEESWAX,—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 10@12c.; in 2-lbs., 9@10c.; off grades, 1 to 2 cts. per lb. less. Buckwheat, in 1-lb. sections, 8@8½c.; in 2-lbs., 7@7½c. Extracted, California. 5@5½c.; buckwheat, 4@4½c. Supply of comb honey is large, and demand for all kinds is improving.

BEESWAX.—21@23c.
McCAUL & HILDRETH BROS.,
Jan. 21. 34 Hudson St.

DETROIT.

HONEY.—Best white comb, 10@11c. Supply large and sales are slow.

BEESWAX.—23c.
Mar. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¼@4½ cts.; amber, 3¾@4¼c. Comb, white, 10@13c.; amber, 7@9c. Market firm.

BEESWAX.—Firm at 20@23.
Mar. 21. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Mar. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Nice comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Mar. 29. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.; white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@8c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 8@8½c.; in small packages, 8½@7c.; dark, in barrels and kegs, 4@5c.—Demand good.

BEESWAX.—25c.
Mar. 28. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: Comb, extra white, 12@13 cts.; amber to white, 8½@11. Extracted, white, 4¼@4¾c.; amber and candied, 3¾@4c. Trade is quiet.

Jan. 10. O. B. SMITH & CO., 453 Front St.

KANSAS CITY.

HONEY.—We quote white clover 1-pounds at 12c.; dark 1-lbs., 8@10c.; white clover 2-lbs., 10@11 cts.; dark 2-lbs., 7@9c. Extracted, white clover, 6c.; dark, 4@5c.; white sage, 5@5½c.; amber, 4½@5.

BEESWAX.—20@23c.
Jan. 13. CLEMONS, CLOON & CO., cor. 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3½@4¼c. Extra fancy of bright color and in No. 1 packages, ¼ advance on above prices. Extracted in barrels, 4¼@5c.; in cans, 5@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Feb. 3. D. G. TUTT & CO., Commercial St.

◆

Continuous Advertising brings much larger returns, in proportion to the outlay, than periodic or spasmodic advertising.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

More Premiums.—Mr. L. J. Diehl, of Butler, Ind., offers a colony of Italian bees as a present to the person sending to this office the largest club of subscribers for 1887. The subscriptions may be sent in at any time before the first of May at our regular club rates, and additions made as desired, but it must be stated that you are working for that premium, so that we can keep account of the subscriptions.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Convention Notices.

☞ The Wabash County Bee-Keepers' Association will meet at North Manchester, Ind., on April 20, 1887, at 10 a.m. AARON SINGER, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887. D. A. FULLER, *Sec.*

☞ The semi-annual meeting of the Southern Illinois Bee-Keepers' Association will be held in the Court House at Benton, Ills., on Wednesday, April 20, 1887, at 10 a.m. All are invited to attend.
F. H. KENNEDY, *Sec.*

☞ The Union Bee-Keepers' Association of Western Iowa will hold their next annual meeting at Dexter, Iowa, on Satuday, Apr. 9, 1887, in the Council Room, at 10 a.m. All interested in bees or honey are requested to be present.
J. E. PRYOR *Sec.*

☞ The annual meeting of the Stark County Bee-Keepers' Society will occur on Apr. 12, 1887, in Grange Hall (over Farmer's Bank), Canton, O. Officers for the ensuing year will be elected. All bee-keepers are urged to be present, and those having hives or fixtures are requested to bring the same for exhibition MARK THOMSON, *Sec.*

☞ The DesMoines County Bee-Keepers' Association will meet on April 26, 1887, at the Court House at Burlington, Iowa, at 10 a.m. All interested in bee-keeping are invited to attend. Articles sent for exhibition, to the Secretary, at Middletown, Iowa, will be exhibited and returned or sold, as directed. JOHN NAU, *Sec.*

☞ The Central Michigan Bee-Keepers' Association will hold the spring meeting in Pioneer Hall, Capitol Building, at Lansing, Mich., on April 26, 1887, at 10 a.m. A cordial invitation is extended to all bee-keepers. If any have troublesome questions, bring them with you, or send them to the President, at Lansing, Mich.
J. ASHWORTH, *Pres.*

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages).............	$1 00
" 100 colonies (220 pages)......	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

Advertisements.

100 Colonies of Bees

FOR SALE CHEAP.—In 8 and 10 frame Langstroth hives. Good condition.
14A3t I. R. Hadfield, Waukesha, Wis.

Shirley's Contractible Bee-Hive.
Descriptive Circular now ready.
Send for it. Address, W. H. SHIRLEY
14A3t Millgrove, Allegan Co., Mich.

Thirty Years a Queen-Rearer.

LONGER in the Business than any other man living. Send for Price-List.
HENRY ALLEY,
14Atf WENHAM, Essex Co., MASS.

Kenward-Hall Apiary.

WE are offering Italian Tested and Untested Queens at living prices, and will duplicate any offer for the Queens of Imported Mothers. Mail in April for $1; per doz., $10. May, 90c.; per doz. $9. June, 80c.; per doz. $8. July, 75c.; per doz. $7. ☞ Write for information and price-list.
J. W. K. SHAW & CO.,
14C2t Loreauville, Iberia Par., La.

A GREAT SCHEME.

CAN we sell honey to the millions? Investigate our new peculiar 5-cent Package for extracted honey, eaten from the hand without knife, spoon or stick, as cleanly as to bite an apple. The first and only cheap, successful package ever invented.

We also have the first Chromo Card especially for bee-keepers. Bees, implements, etc., elegantly printed in eight colors. Italian Queens, splendid Foundation, Bees in Heddon hives, for sale and all represented on our Card. Circulars and cards giving full information free. Package of 10 Cards 10 cts. Sample Honey-Package with candied honey, 12 cts. Now is the time to look these things up for the coming season.
Address, J. H. MARTIN,
4C1y HARTFORD, N. Y.

Bee-Hives, Sections, Section-Cases,
Foundation & other Apiarian Supplies.
Send for our new Catalogue with description of
THE "SUCCESS HIVE,"
which is fast gaining the favor of many bee-men.

ALBINO QUEENS and BEES for 1887.

It should be remembered that we are also Head-Quarters for the "Albino Queens." We also breed Select Italians.

Address, S. VALENTINE & SONS,
14Ctf HAGERSTOWN, Wash. Co., MD.

4,103 POUNDS OF HONEY,
GATHERED
BY 40 COLONIES IN 7 DAYS!

WE have purchased L. C. Root's celebrated breeding stock, which together with our own, gives us the choicest collection of Italian bees in the world, and one that has the

Best Honey-Producing Record Extant.

We will spare a few full Colonies and Nuclei containing some very choice breeding queens of this stock. We make a specialty of rearing ONLY FIRST-CLASS ITALIAN BEES and QUEENS at the
KNICKERBOCKER BEE-FARM,
G. H. KNICKERBOCKER, Proprietor. S. M. LOCKE, Manager.

Our Circular for 1887 contains an important letter (regarding these bees) from L. C. Root, that every bee-keeper should read. Send for it before ordering Queens elsewhere. Address,
KNICKERBOCKER BEE-FARM,
14Ctf PINE PLAINS, Dutchess Co., N. Y.

DON'T BUY QUEENS,
HIVES, SECTIONS or SUPPLIES
before you send for my Catalogue and Price-List. Address,
J. P. H. BROWN,
8E6t AUGUSTA, GEORGIA.

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.,
HAS written, published, and now offers for sale, a little book upon
"THE PRODUCTION OF COMB HONEY."
Its prominent feature is the exhaustive manner in which it treats of the non-use of full sheets of Comb Foundation in the brood-nest when hiving swarms; but it touches briefly upon some of the most important points connected with the profitable production of Comb Honey.
☞ Price of the book, postpaid, 25 cts.
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Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE EXTRACTED HONEY, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 7 cents per lb. Orders solicited.
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Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

BEES for Sale Cheap.—Black and Hybrid bees in ten-fame Langstroth hives, strong in bees, and on straight worker combs. Put on cars for $4.00 per colony. Will ship in hive or in light shipping-cases. No disease.
13A4t H. L. Pangborn, Maquoketa, Iowa.

20 COLONIES of BEES for Sale, in 8-frame Langstroth hives, wired combs, strong in Bees and every way desirable—at $6.00 per colony. F. D. NAGLE,
11A4t SOUTH HAVEN, MICH.

100 COLONIES of Italian BEES for Sale. DANIEL WHITMER,
9A9t South Bend, Ind.

$90 a Month Salary to agents selling goods to dealers. Samples Free. $40 a month to distribute circulars. Expenses advanced. National Supply Co., Cincinnati, O.
12A1y

☞ THOSE who expect to buy an Incubator will consult their interest by addressing,
RELIABLE INCUBATOR CO.,
14A3t Decatur, Macon Co., Ills.

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For HOME SEEKERS or Tourists, Capitalists or Laborers. A vast amount of information not to be found elsewhere at any price.

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Colored Maps of all the States and Territories, including Alaska and District of Columbia.

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BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

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It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

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☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

BEES! 300 COLONIES ITALIANS

READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free. OLIVER FOSTER,
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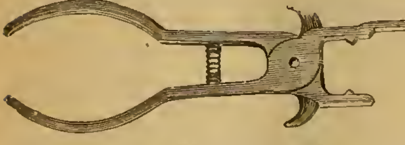
AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

Jones' Frame Pliers.



FOR **taking frames out of hives,** or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, 40 cts., by mail.

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700 POUNDS OF BEES.

DURING first ½ of May I will sell the above at $1.25 per pound. Also Untested Italian Queens bred from Imported Mothers, to go with the Bees, for $1.25 each. Cash must accompany orders, and be sent before April 20. Reference, 1st Nat'l Bank here. E. BURKE, Vincennes, Indiana.
12A3t

THE HORSE,

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A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents—in English or German.

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BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.

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BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents
Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
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BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives; for sale at $8.00 per Colony. **Z. A. CLARK,**
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FOR SALE CHEAP, for cash, 1 to 100 Colonies; Bees by the pound, of either Italian or Albino Bees, and QUEENS. — Address, OTTO KLEINOW, (Opp. Ft. Wayne Gate), Detroit, Mich.
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MANUFACTURER OF

APIARIAN SUPPLIES

And Dealer in BEES and HONEY.

☞ Send for my New Circular.

Corner North 6th & Mill Streets,
12Etf COUNCIL BLUFFS, IOWA.

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100 COLONIES

of Italian and Hybrid Bees for sale at bottom figures. Write for prices.
A. J. & E. HATFIELD,
12Etf SOUTH BEND, IND.

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100 COLONIES of BEES

For sale cheap. Reason, too many.
H. NEUHAUS,
7A8t. Burlington, Racine Co., Wis.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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MANUFACTURERS of the **BRISTOL Bee-Hive,** the Standard Hive of Vermont,

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all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2Et2t

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ARMSTRONG'S New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

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HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE-PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. April 13, 1887. No. 15.

Oh! Happy the lily
  That is kissed by the bee ;
While sipping tranquilly,
  Oh ! quite happy is she.
Also, happy are both,
  As when lovers confide,
The gallant chieftain doth
  Embrace his lovely bride.

◆

M. M. Baldridge has gone to Mississippi, where he will remain for several months, having some bee-interests there which require his presence and personal attention.

◆

"**Bees,**" says the *Scientific American*, "can remember a man." We didn't know that, but we have frequently had reason to believe they could dismember him.

◆

"**Who Imported** the first Italian bees, and when was it?" asks a correspondent. We reply that Mr. Samuel B. Parsons is credited with that achievement. His first queens were received in March, 1860.

◆

Made a Slate.—The Bee-Keepers' *Magazine* for April announces a slate for officers for the projected Honey Producers' Convention for May. It is this :

> President, James Heddon ; Vice-President, A. J. Cook ; Secretary, W. Z. Hutchinson ; Treasurer, Thos. G. Newman ; Historian, Rev. W. F. Clarke.

No, sir ; we shall *smash that slate* in advance. We announced last November (page 723) that we could not accept any official position, if the organization was effected, and gave good and sufficient reasons for our decision. We then added :

> The editor of the BEE JOURNAL already has more "public duties" than he can well perform, and bears more of the "honors" which such bring than he cares to carry.

If the convention is to be held in May, it is quite time for arrangements to be announced. Would it not be better to defer it until the meeting of the North American Society, to be held next fall ?

Another Fraud.—Mr. Willis M. Barnum, of Angelica, N. Y., has sent us a marked copy of a circular sent out by a "concern" in South Bend, Ind., which calls particular attention to a "Recipe" which it has for sale called "Golden Crystal Honey." Agents are advised that it puts "a paying business within the reach of all," with "profits immense ! !"

Our readers will laugh at the immense profits when they read this :

> Profits as a result from the manufacture of the Golden Honey. One hundred pounds can be made in less than one hour at a cost of less than 7 cents a pound, and sells readily at an advance of bee-honey for 25 and 30 cents a pound, many people preferring it to bee-honey.

Any one should know that pure extracted honey can be purchased for the price which this "vile compound" can be made, and which agents are expected to sell at 25 to 30 cents per pound ! But "the Agents' Friend" does not tell them *where* they are to find "suckers" to buy the "vile trash" at such an extravagant price, unless they may find it in the paragraph which reads thus :

> The Golden Honey is an article of unsurpassed excellence, and it is fast working its way into the homes of private families and public hotels. With unstinted perseverance our efforts have been crowned in securing a secret to manufacture the Golden Honey, and we defy the best judges to tell it from the purest bee-honey, and many experts pronounce it superior, as not like the bee-honey, it will never ferment or become rancid, but will keep any length of time in any climate. There are nine ingredients used in the composition of the Golden Honey, any one of which if absent it would be impossible to create the bee principle, consistency and flavor of our Golden Honey.

Hotel keepers usually know too much to be taken in by such villainous trash, and certainly know more of the cost of food products than to pay three times the price for it that would buy pure honey ! !

The "fool-killer" ought to make a trip to South Bend and "rid the earth" of the deceitful rascal who wrote the above paragraph. While he *defies* "the best judges to tell it from the purest bee-honey," yet these same "experts pronounce it superior" because, forsooth, it will not "become *rancid*."

We have heard of rancid oil, rancid butter, rancid bacon, but never thought any one would be such a fool as to think honey would become *rancid !* The composition of the "nine ingredients" called "Golden Crystal Honey" may become rancid, but could never become as rank as the brains of that bombastic writer !

The "Agents' Friend" tells its dupes that they can make a profit of $150 on 1,000 pounds of its vile compound, and adds : "You will always find ready sale for the Golden Honey," the recipe for which "costs only two dollars, with the exclusive right to manufacture and sell in a town of not over 20,000 inhabitants." They are assured that there is "big money in the business" by the writer, who adds :

> GROCERYMEN ARE GLAD TO GET IT, as very many of their customers will buy it in preference, and pay more for it than for the bee-honey. Any ordinary kitchen utensils are only necessary for the making of the honey, and the increasing demand will soon double any amount of capital that may be invested in the business.

This caps the climax ! First it was *just as good* as bee-honey ; then it was *superior* to it ; now customers will pay more for it than for bee-honey, and therefore "grocerymen are glad to get it !"

This is unbounded check, or else the ravings of a lunatic. The fact is that there has been so much of a hue-and-cry about adulteration, that it is quite difficult to convince consumers that even pure honey is the genuine article, when offered to them ; but this crank would have us believe that consumers prefer this "composition" to pure honey, and are willing to pay for it three or four times the price of the pure honey !

"What fools these mortals be !"

◆

Bees Dislike the Odor of the stable; and horses when in a state of perspiration are very liable to be stung, if in the neighborhood of an apiary. The San Diego, Calif., *Union* contains the following from a correspondent, who had a valuable horse stung so badly, so that in his agony he rolled upon the ground :

> A smudge was made with damp straw, and the bees thus driven away from the horse, then the animal was given a good dose of laudanum—several tea-spoonfuls altogether—and in this manner the pain was considerably relieved. He soon recovered sufficiently to be taken to the stable, and was then thoroughly sponged with a strong solution of common baking soda and water. This was repeated, and the result was the animal entirely recovered ; if this treatment had not been adopted he would unquestionably have died.

> While the soda is an excellent remedy, perhaps a better thing to have used would be a solution of ammonia. It is well known that a little of this will quickly relieve the pain when a person is stung, and it would doubtless act much quicker on the horse than would the soda solution. However, either is good, but the application of laudanum to quiet the suffering animal seems to be a novelty in veterinary practice.

◆

Sections Filled with Comb.—Some one has sent us an article of 10 sheets on the above subject, but as it bears no name, post-office, county, or State, we know not from whom it came. Will the author please supply this deficiency in order to save it from the waste basket, as we publish no anonymous communications.

◆

It is said that the sting of a bumble-bee contains only one-fiftieth part of a drop of poison, but it sends it home with as much enthusiasm as if it were a gallon.—*Burlington Free Press.*

◆

New Catalogues and Price-Lists are on our desk. Those desiring to obtain any of them should send to the addresses given—not to us. The following have arrived during the past week :

J. C. Bownan & Co., North Lima, O.—18 pages—Bees, Queens, Apiarian Supplies and Poultry.

E. T. Flanagan, Belleville, Ills.—8 pages—Bees and Apiarian Supplies.

F. J. Crowley, Batavia, N. Y.—6 pages—Bees, Queens, and Bee-Keepers' Supplies.

Charles Hill, Mount Healthy, O.—1 page—Queens.

L. L. Esenhower & Co., Reading, Pa.—10 pages—Grape Vines.

H. H. Brown, Light Street, Pa.—20 pages—Bees, Queens, and Apiarian Supplies.

C. D. Black, Brandon, Iowa—6 pages—Bees, Queens, and Honey.

C. L. Eakin, Wadestown, W. Va.—1 page—Bees, Queens, etc.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

When to Put on Section-Cases.

Query 403.—1. Ought the super or case of sections be put on the hive of a swarm at the time of hiving? If not, when? 2. Ought they to be put on the hives of old colonies before the brood-chamber is filled with brood and honey?—E. & W. M., Va.

I answer yes to both questions.—W. Z. HUTCHINSON.

1. At the time, or very shortly after. 2. Not as a general rule.—C. C. MILLER.

1. Yes. 2. Yes, as soon as harvest opens. Read Mr. Hutchinson's new book.—A. J. COOK.

1. It depends upon the method of management. 2. They should be put on when the hives are filled with brood, and before there is any honey gathered.—C. W. DAYTON.

If metal queen-excluders are not used, it will not do to put on the cases until the brood-nest is fairly started below. I put on the cases in the spring as soon as warm weather has fully set in, and the bees are gathering some surplus. A glance at the top-bars of the frames will usually show white bits of wax, if the bees are ready for the surplus cases.—G. W. DEMAREE.

1. I prefer to wait a day or two until the bees get well started below, before putting on the sections; though when pressed for time, I have placed them on at the time of hiving, with good results. 2. No. Bees will not work in supers as long as they can find room below.—J. P. H. BROWN.

Yes; and usually the super should be one taken from the old colony that swarmed. Whether or not the old colony is ready for surplus receptacles is not positively determined by the amount of honey or brood, or both, which the hive contains.—JAMES HEDDON.

1. If the swarm has left a hive with a case of sections on, take that case and put it on the hive in which the swarm is put. 2. When you see new comb along the top-bars of the frames, and new brace-combs, then it is a good time to put on sections.—H. D. CUTTING.

1. In using what is known as the Hutchinson plan, yes. If a full hive or brood-chamber of 2,000 cubic inches is used, it is just as well to wait a week. I prefer the former. 2. Not before the hive is filled with brood. It is poor policy to allow much honey in the brood-chamber during the heighth of brood-rearing.—G. M. DOOLITTLE.

If the bees are hived on frames filled with comb or foundation, and a queen-excluder used over the tops of the frames, the sections may well be put on when the swarm is hived, as time will thereby be saved. Otherwise wait two or three days or so, until the queen begins laying below.—G. L. TINKER.

1. Yes, with the hives I use it is best to put on one or two cases of sections before hiving. But if you use a large brood-chamber like the 10-frame Langstroth, it is only an exceptionally good honey-flow that it is worth while to put on any sections. 2. When the colony gets to be strong in bees, is the time to put on sections. It is better to put them on then, even if some time before a honey-flow.—G. L. TINKER.

It depends upon the method adopted. In answer to both questions we would say, give them the supers either at the time mentioned or soon after.—THE EDITOR.

◆

Getting Bees out of the Sections.

Query 404.—I am troubled about getting bees out of the sections when the latter are filled with honey. I use two-pound, close-top sections. I have to take the sections out of the case and brush the bees off. Can you inform me of any better way?—Wisconsin.

Use open-top sections, and smoke them out.—C. W. DAYTON.

Turn over the case and apply a little smoke, and then carry them into a dark room with a small opening emitting a little light, and the bees will pass out. Do not use close-top sections.—J. P. H. BROWN.

Use open-top sections, when by the use of smoke the bees can be driven off the honey down below before the sections are taken from the hive.—G. M. DOOLITTLE.

One way is to put the bees in a tent of wire-cloth or musquito netting, having a hole in the top of the tent, and the bees will come out themselves. See page 55 of "A Year Among the Bees."—C. C. MILLER.

With your close-top sections you cannot practice tiering up. With two sets of sections on, if you leave off the hive-cover at night, you will have but few bees in the top case of sections early in the morning, and they can be taken off with ease, placed in a well-lighted room, and all bees will go to the windows.—H. D. CUTTING.

It is no easy task to get bees out of a section case in which close-top sections are used. I have a little closet standing in close proximity to the apiary, which has a door so as to take in the cases. The closet will hold quite a number of cases at one and the same time, and when the door is shut the place is perfectly dark. The shutter of the door has a bee-escape in its centre. The bee-escape permits the bees to leave the closet, but they cannot return. With my open-top sections I smoke the bees down, then lift the case and carry it to the "bee-escape," and leave them there until the bees return home. I could not describe how the "escape" is made, here, for want of space.—G. W. DEMAREE.

Every bee-man has his "pet-method" for taking the bees out. A good way is to place the crate on a board not far from the hive, covering it with a sheet. The bees will crawl up under the sheet, and will promptly leave, unless they have the queen with them. Care must be taken not to give ingress to robber bees.—DADANT & SON.

Use open-top sections. Pour a perfect deluge of smoke down upon the bees, when most of the bees will run down. Take off the case and tremulously shake it in front of the hive, which will dislodge most of the bees. The case should then be carried to a room having windows so arranged as to allow the bees to escape, but let none in.—W. Z. HUTCHINSON.

In the first place I would not use close-top sections. I prefer wide frames to hold 4 sections, and make the separators movable, so the bees can be shaken from 4 sections at once. They do not brush off readily. The only perfect and wholly satisfactory method of taking comb honey is by the use of wide frames to be removed one at a time as above. It is the only method by which the honey can be taken without more or less injury to the capping. It is easy to take 60 pounds of honey free from bees inside of 10 minutes by this plan.—G. L. TINKER.

Probably the method you mention is the speediest. If a number of cases of sections are placed in a barrel or box, and a piece of cloth thrown over the open top, the bees will soon crawl or fly to the cloth, and can there be shaken off. Put the section-cases into a close room, and the bees will soon go to the windows, when they can be released.—J. E. POND.

Put crates of sections in a bee-tent or bee-house. The bees will leave and may be liberated from the tent or house at the apiarist's pleasure. I have placed section-crates in a large dry-goods house, over which I spread a blanket, leaving only a small hole. The bees would leave the sections. When the bees are not gathering, this last method may endanger from robbing.—A. J. COOK.

Yes. It is better to use open-top sections (one-pound sections preferred), and place the case on end (so the light will shine through it), smoke one side, then pick up and shake off and out nearly all the bees, then place it on end in a screen-house or darkened room until the rest desert. There will be no queen nor possibly brood in the surplus-case if you use the queen-excluding honey-board. This is the way I have done for years, and now in running the new hive for extracted honey, I do it with my extracting supers, and in both cases so quickly that robber bees cannot get in their work, even if they should be on the war-path at the time.—JAMES HEDDON.

The "better way" is to use open-top sections, and drive the bees out by the judicious use of the "smoker."—THE EDITOR.

Destroying Inverted Queen-Cells.

Query 105.—What is your actual experience in regard to bees tearing down queen-cells when the cells are inverted?—Missouri.

have none.—G. M. DOOLITTLE.

have had no experience.—C. C. MILLER.

I have never watched to see if cells were torn down after inversion—W. Z. HUTCHINSON.

As I do not *invert* queen-cells, I have no experience in regard to bees tearing them down.—J. P. H. BROWN.

My experience has been that they will, and that they will not. I could give numerous experiments causing me to believe that inverting will not settle the swarming question.—JAMES HEDDON.

They do not tear them down if they are well under way of completion; but if inversion is employed in season, they will abandon the work and begin anew, t'other side up.—C. W. DAYTON.

My experience is with only 3 colonies. I inverted the brood-nest each week, and had no swarming, but got a fine lot of surplus comb honey.—A. J. COOK.

I have given the matter only some attention to gratify my curiosity, and I am satisfied that while such unnatural manipulation will cause the bees to destroy some of the cells, the plan will not work as a rule. I prophesied some years ago in the columns of the AMERICAN BEE JOURNAL that reversing hives, etc., would "play out" when put to practical test, and the prophecy is coming to pass sooner than the "prophet" himself had any idea of.—G. W. DEMAREE.

Both. I have found them torn down at once, and also allowed to remain. As yet an inverted queen-cell has never produced a queen for me. My experiments in this direction, however, have been few, as the idea proved itself to me to be unnatural and impracticable, after a brief trial.—J. E. POND.

Plant Alsike Clover.

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. This should be scattered into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents; 100 for 50 cents: 500 for $2.25—all postpaid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⟜ northwest; ⊸ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

"The Production of Comb Honey."

WM. F. CLARKE.

Long ago, one remarked, "Of making many books, there is no end," and it will probably be so to the end of time. It is remarkable how soon some books become obsolete. They are left behind in the march of progress, and remain, like mile-stones, having only one function, that of marking the headway that has been made. Looking over my library the other day, I was struck with the number of books valued in their day, that are now nothing but beads on a wire, mere counters and markers, keeping record of how the game of thought has gone on.

Mr. Hutchinson's modest little book certainly marks an epoch, but I scarcely think will be ephemeral, because it brings out some of those great apicultural principles which we are slowly discovering, but which when once they have arrived within our field of vision, are there to stay. One of these is the necessity of using means to multiply workers in time for the honey harvest. Of course this is not new with Mr. Hutchinson, but he has emphasized one of those means, viz: *warmth*, in a more forcible way than common. He proposes to pack bees after their removal out of the cellar, in order to protect them from the cold snaps of early spring. This packing he would retain until the time has arrived for putting on supers.

Mr. Hutchinson anticipates this objection: why not practice out-door wintering, then winter protection will answer for spring? His reply is that the saving of stores by cellar wintering will pay for the expense of spring packing four times over; also, that it is only by cellar wintering that the thing can be reduced to a system; the system being one of uniform food and uniform temperature. Uniform food means sugar, which many of the best bee-keepers eschew; and uniform temperature is a delusive idea, though clung to with much pertinacity by Mr. H. and others. Let me endorse most emphatically *spring protection*, no matter how you get it, and at this point risk a prophecy to the effect that we shall yet find a clue to the mastery of this difficulty in some style of all-the-year-round protection, protection against both cold and heat, and I rather think we shall discover it in the house-apiary. Personally, I would give considerable if Messrs. Vandervort and Oliver Foster would tell us all they know on this subject.

I am sure that in these days of cheap honey, we must find a cheaper and less laborious way of bee-management than to feed sugar in the fall, remove hives to the cellar, put them out in the spring, provide outer cases, pack our bees, unpack them, and store away cases.

I think that Mr. Hutchinson exaggerates the difference between the stores required in the cellar and outdoors, when he says it will pay the extra cost of spring packing *four times over*. Let Cyula Linswik, A. G. Hill, A. I. Root and other successful outdoor winterers give us their figures, and I do not think they will sustain this strong assertion. But, I say again, let us have the spring protection, anyhow, and at whatever cost. I am inclined to think we shall yet find a way of adding to spring protection artificial heat as a help to early brood-rearing. Market gardeners are ahead of us with their hot-bed methods of forcing spring vegetables. We must discover a method of forcing young bees. We have found out that we cannot do it by stimulative feeding. What we want is a hive in which heat can be maintained in early spring at the brood-rearing temperature. Something more is required in the line of hive invention. I can plainly discern the *desideratum* the exigency calls for, but alas! I have no inventive faculty. If I had, I should have made my fortune long ago, not as a hive inventor, but as a novel writer. I have the faculty of composition, but not that of invention.

The main object of Mr. Hutchinson's book is to give prominence to the principle of comb-building in its relation to honey storing. He believes there is a "balance of power" to be maintained between these two, and I think he is right. He is of the opinion that we have deranged this balance by a too large use of empty combs, and of comb foundation. He does not give us theory, but the result of careful experiment. I will not attempt to condense his system in this review. It is clearly and forcibly stated in his book. Let me advise all bee-keepers to get the book, study it, and practice along the lines it so plainly marks out. Mr. Hutchinson's candor and modesty are conspicuous in his closing sentence: "I desire and *request* the freest of criticisms; and let those who, for the first time, adopt the methods herein advised, do so upon no larger scale than that on which they can afford to meet failure; and if failure comes let them report it, together with the accompanying circumstances, and all will find me ever ready to explain and defend my views; or, if necessary, acknowledge my errors." Nothing can be fairer than this, or more likely to elicit the truth.

Mr. Hutchinson's book is a step in advance not *on* the new Heddon hive, but along with it, and this fact will doubtless expose him to the criticisms of those who think they have discovered in it "the sum of all villainies." He may expect to be ridiculed as a copyist, to have every old, obsolete bee-book ransacked for something that can be tortured and twisted into a germ of his new idea, and possibly he will be accused of trying to deprive comb foundation men of their legitimate profits, or even of their livelihood. But the great mass of intelligent bee-keepers will recognize in this *brochure* a modest, honest, earnest attempt to help those who, as the dedication says, "are getting their bread and butter by producing honey to spread on the bread and butter of others." It will help them too, because whether they adopt the author's methods or not, it will make them more observant of results, more studious of nature's laws, and more intelligent in their management of the "little, busy bee."

I am particularly pleased with the chapter on "The secretion and utilization of wax." Short though it is, it lays down principles that are not only of great importance to the matter specially in hand, but to bee-keeping generally. There has been, in my opinion, far too much done in the way of trying to revolutionize the bee. The bee is peculiar, and its value largely depends upon its peculiarities. We must utilize these, not fight them. I heard Sam Jones the other day. Among other things, he said, "I am objected to because of my peculiarities. These are what make me Sam Jones. Take these away, and I should not be myself at all, but somebody else, and probably somebody of no account." We have tried to make the bee breed in public by an everlasting opening out of the brood-nest, when like all other creatures, its instinct teaches it to breed in seclusion; we have tried to prevent it from swarming; we have turned its house and home upside down; and we have tried to make it cease wax-making and comb-building, and devote itself as exclusively as possible to honey gathering. If we could have made comb walls as well as foundation, we should have done it. "Every fool will be meddling," and there is some fool about the wisest of mankind. Now let us stop trying to re-make or re-model the bee, and take it as it came from the Creator's hand. The bee is a wax-maker and comb-builder, as well as a honey-gatherer and storer.

Who knows but there is a waxy element in the honey that needs to be abstracted before it goes into the cells? At any rate, while we appreciate and admire the assiduity of the bee in the honey line, let us not forget that there is, no doubt, a sphere for the exercise of the other function that will cause mankind, down to the end of time to note,

"How skillfully she builds her cell,
How neat she spreads her wax."

With these fraternal words, I cordially welcome Mr. Hutchinson to the noble army of authors!

Guelph, Ont.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

For the American Bee Journal.

A Lady's Experience with Bees.

MRS. H. HILLS.

DEAR EDITOR:—I have had a general clearing up of letters, catalogues, etc., which have accumulated since I began bee-keeping, three years ago; and thus all the courteous and kindly replies which you have so generously given to the seemingly unimportant questions of a novice, have been brought again to mind. I can no longer delay the attempt to express my thanks. In no single instance have you failed to give close attention to every question, and you have unstintedly given your time and results of your experience to a beginner, and always in such a manner that the receipt of a postal or letter from you has been a pleasant incident in bee-keeping life.

Thus far I have written no report of my apiary to the AMERICAN BEE JOURNAL, preferring to wait until definite ground might be reached. Three years of close attention to bees and bee-literature ought to bring the novice to such point.

During the winter of 1883-84, long-continued ill-health and an indefinable longing for some out-of-doors pursuit, led to a general search for some path into such vocations. Silk-culture was at first decided upon, and correspondence opened in that direction. It was decided finally that in planting the mulberry trees, it would be safer and better to raise them from the seed. A quantity of this, both Chinese and Russian, was obtained; and I may add, that I have now several hundred of these trees set for a hedge around the apiary.

Meanwhile another member of the household became interested in bees, and on April 10, 1884, brought home 2 colonies in box-hives; also borrowed Quinby's book, and begun to study bee-keeping, ordering me also to do the same. How mysterious are the secrets of bee-keeping to the novice! I shall never forget how impossible it then seemed, to gain a clear knowledge of the many "ways that are dark" connected with the pursuit.

But soon the weather admitted of frequent visits to those box-hives, with glass under the doors, at the back. Hour after hour was spent in watching the movements—apparently tending "no whither"—of the busy little elves; and when one day after long waiting, so much patience was rewarded by seeing a veritable drone, it was recorded in the note-book as a great event.

It did not take many weeks to convince me that bee-keeping was the desirable avocation, provided that it could possibly be carried out by a woman. Correspondence was opened with two successful lady apiarists, who at once responded with the necessary encouragement and advice. If Mrs. Harrison and Mrs. Gould should notice this report, they will doubtless call to mind the ludicrously anxious missives which they at that time received from a stranger. Their kindness carried the novice through the initiation ceremonies of the never-to-be forgotten day—May 30—when both colonies cast immense swarms within two hours of each other; and I became the happy possessor of 4 fine colonies of bees.

Since that day I have had what certainly might be called uninterrupted success. On Sept. 1, 1886, the apiary numbered 41 fine colonies, all from those 2 colonies in box-hives. I have never lost a colony from any cause whatever, and the surplus honey during the three years, as nearly as I can calculate, was 82 pounds per colony, spring count, after deducting the cost of wintering all colonies.

Sheboygan Falls,o+ Wis.

For the American Bee Journal.

Analyzing and Ripening Honey.

SAMUEL CUSHMAN.

A close reader of our bee-periodicals for the past two years might have gathered together from the various articles the following ideas: The nectar of flowers is not honey until changed or ripened by the bees. It is natural sugar, water, a small quantity of albumen, gum and essential oil or flavoring. Bees are able to abstract much of this water, absorb and discharge it before the nectar is deposited in the hive. Formic acid, the active principle of bee-poison, is frequently added to this nectar, a large amount being required by new honey, and but little to preserve ripened honey. This acid is a preservative, also chemically changes the natural sugar to its inverted form—a change that the chemists are familiar with. This change gives honey that smooth, mellow taste for which honey from the old box-hives is celebrated. The heat of the bees causes the excess of water to evaporate, and favors or is necessary for this chemical change. Bees treat capped honey with this acid, which is absorbed by the porous capping. The cappings of honey are porous until varnished or gummed over by the bees.

The legitimate purpose of the sting is to insert this acid into uncapped honey, and to pierce the cappings of sealed honey; stinging is but a side issue. This view seems to be supported by the fact that when bees are not gathering honey, a sting causes much more effect, supposed to be caused by the accumulated poison; and that stingless bees from South America store little honey, as they are unable to preserve it. Hybrids, which are the worst stingers when there is no honey to be gathered, are the best honey-gatherers.

Some think that the "crop," or honey-bag of the bee is where this acid is secreted and added to the honey. It is said that a normal colony with plenty of this secretion may prevent and cure foul brood. Formic acid is similar in its nature to phenol (carbolic acid) and salicylic acid—agents used by bee-keepers to cure foul brood. They are all preservatives, and cause death to fungus or germs. This acid can be noticed in new honey by its irritating effect, but old honey, where its strength is neutralized or expended, is smooth and mild.

Raw nectar, or ripe honey that is heated and the acid expelled, does not keep so well. New honey, if extracted, may be thickened by evaporation, but this causes loss of flavor, and such honey is imperfectly changed from a lack of the constant addition of this acid. Generally, honey is ripe as soon as capped; however, much is ripe that is not capped, and much is capped that is not ripe.

The longer the honey is cared for by the bees, the more completely is it ripened. The Dadants and many others work on this principle, leaving the extracting supers on the hive until the end of the season. Such honey can be bottled as soon as extracted, and there is no loss of flavor.

Probably some of the above is simply theory. How and when formic acid is added, cannot be easily known, and will require careful experiments to determine. Rev. W. F. Clarke says that he has experimented in a way to cause him to think that the sting of the bee is used as a trowel in comb-building, and that stinging is not its legitimate use. Will he kindly describe these experiments? I think that honey lacking formic acid or the required heat, would be more liable to the coarse granulation often complained of. Fall honey is soon taken from the hive, and this is more liable to granulate in the comb even in capped cells.

The ripening of honey seems to me an important matter. This is an age of progress, and while the best and most successful producers—many of them—do not accept these views, this is not sufficient to discard them.

The above ideas may throw some light upon the unsatisfactory results of the analysis of samples of honey in comb by the Government chemist. Many prominent apiarists furnished samples, the purity of which they could swear to. Some of these samples were pronounced apparently adulterated, and others apparently genuine. At the Detroit meeting of the North American Bee-Keepers' Society, this matter was referred to by some of the members who had furnished samples, and the sense of the meeting was that such a report was unjust, and caused unmerited injury to the industry, and that Prof. Wiley should only have published a report on that which he was sure of, instead of classing the honey as "adulterated," "apparently adulterated," and "apparently genuine." This report, "Honey and its Adulterations," may be found in the United States Agricultural Report for 1885, pages 109 to 117, or the *American Apiculturist*, Vol. III, page 265. Prof. Wiley is the one who started the sensational story that comb honey was made by machinery filled with glucose, and capped over by machinery, and who afterward admitted it to be "a scientific pleasantry." This was from a government employe.

According to these results of the analysis of honey it may not be safe for an honest producer to offer as many do, $100 reward to any one who will prove by analysis that his honey is not strictly pure.

According to the principles referred to, the samples taken off the hive as soon as gathered, would be nearly pure nectar somewhat evaporated, and would have a large proportion of natural sugar, styled by chemists, cane sugar or sucrose. That more ripened would have less cane-sugar and more inverted sugar; and that thoroughly ripened would have little or no natural (cane) sugar, and more natural glucose or grape-sugar and inverted sugar. If the best ripened honey is to be taken as a standard, then all not as thoroughly ripened will be pronounced "apparently" adulterated. This matter of judging the purity of honey by analysis is an important and a serious one to honey-producers, and is worthy the attention of our ablest men. We hope Profs. Cook and McLain, of the United States, S. Corneil, of Canada, Frank Cheshire, of England, and others may be able to experiment in a way to throw more light upon this subject.

Mr. McLain, with the help of the chemist of the Agricultural Department, should be able to do a service worth more to our pursuit than several years' expense of the Experimental Station. If the chemist should be furnished with honey thin and just gathered, that just capped and that capped and on the hive until the end of the season, the result of the analysis of such honey showing the proportions in each of the natural, inverted and grape sugar, would be of great value. One lot might be analyzed when it was taken from the hive, and another lot stored in the usual honey-room until the time it is usually sold. It all should be from the same source and from the same colony which should be kept of uniform strength the entire season.

Pawtucket, R. I.

For the American Bee Journal.

Preventing or Controlling Increase.

A. A. FRADENBURG.

In my 10 or 12 years' experience, I have been trying to learn how to control swarming, and I have concluded that it is best to let a colony swarm once, then prevent all after-swarms, so far as possible; but by getting one prime swarm from each colony it does not necessarily follow that we are obliged to have an increase of 100 per cent. from all that do swarm.

For the benefit of Mr. Abel Gresh (whose article appeared on page 167) and others, I will give the plan I tried last summer, and the results; but I am not the orginator of it, for I read it in some paper last year. It is as follows:

As soon as a swarm is out, and has begun to cluster, or after it has clustered, put an empty hive in a new location; then put off all the surplus receptacles of the parent hive, take the frames out of the brood-chamber and destroy every vestige of queen-cells, and put these same frames in the empty hive. But leave 1, 2 or 3 of the frames, as you may desire, with brood, honey and adhering bees in the parent hive, leaving them only one queen-cell. Then fill the balance of the brood-chamber in the new hive with empty combs or foundation, or empty frames.

Now put the surplus receptacle that was taken from the parent hive and put it on the new one; shake the swarm, that has clustered nicely by this time, in front of the new hive. Now they have swarmed according to nature, have a new home, and are satisfied on that score. In a short time the queen will be attending to her own business amongst the brood, and the workers will be working hard storing honey in the sections, as they have no other place to put it, and the bee-keeper need not wait a week or more to see any increase of honey stored.

I tried the above plan on 7 swarms last summer, and it was a success in every case, except one that swarmed again after 3 or 4 weeks; but I was satisfied it was caused by a desire to supersede their queen, and they allowed too many queens to hatch.

Now about the parent colony, or what was left of it: I generally left 2 frames of hatching brood and one queen-cell, then filled up the hive with empty combs, and with what straggling bees returned it made a pretty good colony with plenty of stores by fall, and the whole 7 are all right at this time. If I wanted but little or no increase, I should leave but one frame and but little brood—just enough to retain the returning bees, then put several such together; or else hive the next swarm where the last one left.

Port Washington, Ohio.

For the American Bee Journal.

The Cause of Low Prices for Honey.

R. C. AIKIN.

Much is being said about markets, monopolies and associations. We can theorize and talk, but practice and experience is what opens our eyes. I have never known what it is to lack a market for my honey. Experience has taught me that the most of our troubles are our own making. I consider that the credit business, coupled with pride and mismanagement lies at the bottom of the whole trouble. For example: I wish to buy more bees. My neighbor will sell me 10 colonies and wait until January for the pay. I jump at the chance, thinking that I can sell honey to pay for them. The crop fails; I have done business on capital that was not my own; I have done business on the prospects of good health and prosperity.

My neighbor sees my condition. I cannot pay legal proceedings; waste one-half of the stock of bees to collect the pay and interest on the other half. But to be a little more lenient, say the time of payment is extended until another January. The season this time proves fair, but interest runs up the bill. I have been putting in my time on dead property (by dead, I mean unprofitable). It has cost me something to keep these bees, and putting all together, I find myself "hard run." Now what do I do but sell at a sacrifice, not because I want to injure a neighbor who is in the same business, nor do I want to lower the prices one particle. Common-sense would teach me the folly of such actions, but I sell at a low price because I must have money and cannot wait until the people are ready to buy, so I give them a "bait" by "offering cheap" Had I used a little common-sense at first and not taken risks that I was not able to carry, I might have saved myself the loss. Experience has taught me that it is better to have a surplus on hand than to sell all we have at once, and be out the balance of the year.

Here is a case just to the point: Last fall a certain man had a nice lot of honey. He was in debt, and his creditors had the "upper hand." He placed his honey on sale, part of it in a grocery with instructions to sell at 12½ cents per pound. It did not go very fast at first. The creditor said it was too high; that certain others were selling for less. (This, however, was not true, at least for the same grade of honey.) The final result was that the best comb was sold at 10 cents per pound, and by mid-winter that man had no honey left.

Another experience: I have been for 12 years a limited producer of honey. I sold only in my home market, and have never had sufficient honey to supply the demand any season. I gave a young man a few lessons in bee-keeping. He undertook to enter the business for himself. He had about 15 colonies, put his crop on my market and sold at 16½ cents per pound. I had been, and was at the same time, selling at 15 cents. Now because I would not advance to his price, he became angry and ordered his sold at 12½ cents or less, if I should follow him down. I just held my honey at 15, and if it would not sell at that, I held it until the other was gone. The result was that I had mine a short time, and the other sold out and retired disgusted, and has not bothered me since.

Organization of producers will not and cannot regulate the market. But if we would only "make haste slowly" we would be better off. It would be better to "legislate" to make it a finable offense to go in debt when we have not the capital to enable us to get through without damaging others. Let every man live within his means, and keep a few dollars in his pocket, and when prices are below first cost, do not sell. The man that is "well fixed" financially, is not the man that lowers prices; and the poor man who has gotten himself "into the box" will not have crop enough to supply a market for a whole season. If the unfortunate man is spoiling your market, buy him out and help him and yourself too.

The man, association, or corporation that takes advantage of those who may be subject to their power, damage themselves as well as others. The real rogues are very few compared with the mass of the people, and we will have but little trouble with dishonesty if we would but be honest with each other in every respect. We ought all to give as well as receive good prices.

Shambaugh, ♀ Iowa.

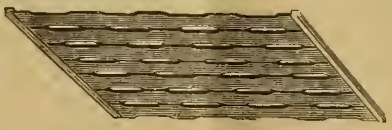
For the American Bee Journal.

A Section-Case for Comb Honey.

J. W. POWELL & SON.

Having noticed a section-case described on page 183, we would like to say a little on the subject, especially as that case is something like the one we use. We began where Mr. Eaton has, but we think we have taken a step or two in advance, as will be noticed by editorial comments on our section-case on page 147. As we have received quite a number of letters asking for more definite description, we will endeavor to give it.

Our honey-board is like the engraving. The bottom of our case is made in the same way, except that the slats are nailed fast on the bottom of the case in a rabbet ⅜ of an inch deeper than the thickness of the slats, which gives a bee-space below the case. The rabbet is cut just the same on top as on the bottom, which gives room for the honey-board.



The case is made reversible, by fastening some small sheet-iron buttons on the sides, which holds the honey-board in place, thus keeping the sections secure in any position. The centre of the slats are kept from sagging by strips of wood ⅜ of an inch square, tacked crosswise, or tin strips may be used and folded like this ¬; or if separators must be used, why not fasten those **T** tins inside of the case like this **⊥**; or use the ½-inch strips of tin that Mr. Eaton speaks of? We do not use separators, and so we will let those who use them, arrange that to suit themselves.

In conclusion we will say that although this case is entirely original with us, still we do not intend to patent it. All are at liberty to use it, and if it should be found to possess superior merit (and we think it will), we do not fear but that all honorable and fair-minded bee-keepers will give us full credit for the invention.

Mankato, ♀ Minn.

☞ The semi-annual meeting of the Southern Illinois Bee-Keepers' Association will be held in the Court House at Benton, Ills., on Wednesday, April 20, 1887, at 10 a.m. All are invited to attend.

F. H. KENNEDY, *Sec.*

For the American Bee Journal.

The Cappings over Honey.

W. Z. HUTCHINSON.

At the convention in Detroit, Mr. Jones said: "We sometimes have honey so thickened that it does not fill the cell more than half full. If the capping was air-tight, how could this evaporation take place?" Mr. Doolittle said that he had seen honey so thickened by sections of it standing upon a mantel-piece, that it did not occupy more than one-half of the space in the cellar. If the cappings were impervious, this could not occur.

When Messrs. Dadant, Poppleton and myself were discussing this in the hotel at Indianapolis, Mr. Poppleton said that two lots of honey taken from the same case and hive, and stored by the same bees—in fact, exactly the same, the one kept in a dry atmosphere, and the other in a moist one, would show conclusively that the cappings were not impervious, as the honey in the dry atmosphere would become thicker, occupying less space, while that in the moist atmosphere would absorb moisture until it oozed from the cells or "sweat."

I do not know that fermentation increases the *bulk* of liquids—it certainly generates gas, and it is *this* that blows out "bungs" and "raises the mischief." When honey "sweats" we do not find the cells partly filled with gas, but running over full of diluted honey!

The only moral I can draw from this discussion is, keep your honey warm and in a *dry* atmosphere.

Rogersville, ♂ Mich.

For the American Bee Journal.

Hives for Preventing Swarming.

F. A. SNELL.

I have read with much interest the articles which have appeared in the various bee-papers in relation to Simmins' method of preventing or controlling swarming, with a hope of finding something new and practical; but as I understand it, it is not new. The idea of such a hive was first advanced by D. L. Adair, of Kentucky, I think, and he invented a hive known as the "New Idea" hive, which attracted much attention for a time. Its merits were fully described in the BEE JOURNAL by Mr. Adair, E. Gallup and others in 1871 or 1872.

Many bee-keepers tried the hive, as it had quite a reputation for a few years. I made and tested the hive, and will say that swarming could be well, or quite well controlled by extracting, yet the hive did not prove practical. Briefly stated, the hive was arranged as follows:

The frames were used one tier only, and run crosswise of the entrance. From the front to the rear the hive was 2½ to 3 feet, to suit the taste of the bee-keeper. In use, the frames near the entrance were to be only part full of comb, or, if full combs were there placed, the honey from such was to be frequently extracted. I tested the hive for extracted honey three seasons. I then arranged it for comb honey. I contracted the brood department and gave a passage for bees out and in. I placed a set of honey-boxes in front of the brood-nest, and one in the rear, and one and two tiers on top.

But for comb honey I could not run the hive so as to control swarming, and the hive was laid aside. It did not suit me for extracted or comb honey. I have taken the AMERICAN BEE JOURNAL for 20 years, and it is a real treat to look over the old numbers. In those days I could readily get 25 cents per pound for all the comb honey I could produce, and 15 to 18 cents for extracted honey.

Milledgeville,⟜ Ills.

For the American Bee Journal.

The Prevention of Increase.

E. C. L. LARCH, M. D.

This is a subject of vast importance to bee-keepers generally. When working for extracted honey there is but little difficulty, hence I shall confine myself to the production of comb honey, having 15 years' experience in the management of bees; three years of the time was devoted to the task of learning the instincts, nature and habits of the "busy bee," and I have in a measure succeeded. I usually keep about 120 colonies, have no losses to report during that time, and my bees have a habit of doing just what I expect them to do.

The first thing to do, is to have no old or decrepit queens; the queen should be one year old, just in her prime. Second, get the bees to working in the boxes as early as possible, keep the hive shaded and sufficiently ventilated to get the bees to work in the boxes. Give them some foundation in the brood-chamber, and when the larvæ is two or three days old, cut this out and fasten a suitable amount in the boxes, and the bees will always commence work above, if strong enough; but should they resolve on swarming, let them have their way, and as soon as they are clustered, open the hive and brush the bees off of the combs into an empty hive, and give them one comb of brood having the oldest queen-cells. Return the combs to the hive from whence they were taken (first cutting out queen-cells), and supply the place of the comb that was taken out, with an empty comb or foundation, or, what is better still, move the frames together so as to contract the brood-chamber, and place a division-board on the outside of the combs.

Return the honey-boxes or sections, and hive the swarm and put it in a new location. Thus you have the swarming impulse effectually destroyed, and the comb in the new hive must remain on the old stand for a nucleus for queen-rearing; give them empty combs or frames of foundation when needed, or, if preferred, unite these nuclei whenever there are enough for a strong colony, and enough bees to work in the sections above; also give them a good young queen and they will, if rightly managed, soon go to storing honey the same as an old colony.

By this plan the increase is limited to 10 per cent. should they all swarm, which they will never do, and, besides, it is the most satisfactory plan that can be adopted for securing comb honey, and getting a moderate increase, which may be always utilized by doubling up weak colonies whenever the apiarist desires no increase of colonies. But success depends upon the knowledge and skill of the apiarist, as well as upon his energy, perseverance and industry.

Ashland,⊙ Mo.

For the American Bee Journal.

Legislation for Bee-Keepers.

J. E. POND.

I had intended to drop the discussion of this question entirely with my last article, but Dr. Miller says on page 199, "will Mr. Pond tell us of a single person?" etc. This question related to the matter of priority. In reply I will say that no one, so far as I have any knowledge, has ever "requested or desired legislation on 'priority,'" but it impresses me quite forcibly as a logical proposition, that in order to legislate that some *one man* shall be *the* man to keep all the bees in a given locality, a decision as to whom that man should be, must be made, and it would work manifest injustice to say that the first one who started the business, should give way to a follower. For this reason I cannot see how the question of legislation as desired by Dr. Miller can be divided from that of priority.

Now I will ask Dr. Miller a question; not a legal one, but a common-sense one, viz: Why should some one man's bees have the sole right to gather the free offerings of nature, even if in the form of nectar from all the surface in a given locality, any more than this same man should have the sole right to sell the honey his bees gather in the same neighborhood? or again, why, if A and B have adjoining estates, each owning large tracts of land, should A have legislated to him the right to gather honey from B's land, and B be debarred?

Individually I do not care a snap about the question, but as a man who strongly opposes monopolies, and believes in equal rights to all before the law, I must insist that under the constitution of the United States no legislation can take from me the right to enter upon and engage in any business or occupation that I may choose, provided I conduct a legal business in a legal manner. Legislation is restrictive and necessarily so; the very first thing that is implied in *law* is restraint; the advocates of bee-legislation, and I fear Dr. Miller with the others, have the idea, judging from their words, that the legislature can make or unmake, can allow or suppress. This is not so. In order to suppress any business, etc., it must be declared a nuisance, and if not so declared no law can be constitutional that prevents each and every man that may choose from engaging in it.

Political economy is the science that all legislatures strive to employ. Supply and demand will invariably regulate matters, and this same law will regulate the business of bee-keeping as well as any other.

One thing more I will ask of Dr. Miller, and then I will drop the discussion. Will he give us an idea of the form of legislation that would suit him, and then if the form is in anywise restrictive of the rights of any other person, will he show us how he would harmonize such legislation without "bill of rights?"

Foxboro,⊸ Mass.

For the American Bee Journal.

Mr. Hutchinson's New Book.

PROF. A. J. COOK.

One of the first things that Mr. A. I. Root said to me the other day, as we met at my farm in Owosso, Mich., was this: "I have read Mr. Hutchinson's new book on comb honey, as I came here. It is so good that I have only one criticism: It is too short." I have, since that, read the *brochure* myself, and I agree with Mr. Root, except in the criticism.

I like what an English scientist recently said in "Nature," to-wit: "Now in these days, and in the interest of readers, if there is one thing against which more than anything else a resolute stand ought to be made, it is unnecessary printing. The day is yet far distant when every page of printed matter shall contain something that is new, and nothing not new; but this is the impossible ideal which all writers should keep prominently in view." How well Mr. Hutchinson has done this.

I need not say to the readers of the AMERICAN BEE JOURNAL that Mr. H. is second to no American writer on apiculture, in practical common-sense, and in directness and precision. This book shows him at his best. Honey — especially extracted honey—is now down to bed-rock prices. How opportune, then, the direction which shall lead to the maximum yield of that—and that is comb honey—which shall bring the maximum price. Just this is Mr. H's aim; and I doubt if any bee-keeper among us could do it better. Mr. H. has boiled this recipe right down, and made all so clear that most, if not all, can at once profit by the advice.

The mechanical part of the work is good; especially to be commended is the beautiful cover — yellow paper stamped by the comb foundation mill. It is surely a good foundation for the excellent matter within. It is as exquisite as it is unique.

I am the more happy to praise this book, as I have personally proved the value of most of its suggestions, and can recommend them to all. The bee-keeper who does not invest 25 cents for this work, makes a mistake.

Agricultural College, ♀ Mich.

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 14.—Eastern Indiana, at Richmond, Ind.
M. G. Reynolds, Sec., Williamsburg, Ind.

Apr. 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Apr. 20.—Wabash County, at N. Manchester, Ind.
Aaron Singer, Sec., Wabash, Ind.

Apr. 20.—Southern Illinois, at Benton, Ills.
F. H. Kennedy, Sec., DuQuoin, Ills.

Apr. 26.—Central Michigan, at Lansing, Mich.
J. Ashworth, Pres., Lansing, Mich.

Apr. 26.—DesMoines Co., at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 4, 5.—Texas State, at McKinney, Tex.
B. F. Carroll, Sec., Dresden, Tex.

May 5.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec. Cherry Valley, Ills.

Dec. —.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Welcome Change of Weather.—Geo. E. Hilton, Fremont,+○ Mich., on April 3, 1887, says:

Last Monday morning the ground was covered with snow to a depth of 8 inches, and at daylight the mercury was just at zero. To-day at 3 p.m. it is 70° above zero, and the bees are bringing in pollen, although there is plenty of snow in places. My bees never wintered better—in fact it sounds more like June than April, in the apiary to-day.

Rough on Bees.—Jacob Oswalt, Maximo,♂ on March 30, 1887, says:

The month of March came in like a lamb, but went out like a lion. On March 29, we had a regular blizzard from the northwest, with 2 or 3 inches of snow. The temperature was down to zero, and everything seemed to be freezing after 6 weeks of pleasant weather. Bees on the summer stands suffered severely.

Wintering Bees in the Cellar.—M. O. Tuttle, Osage,♁ Iowa, on April 1, 1887, writes:

I put 80 colonies of bees into the cellar last fall. A stove was kept in the cellar, the chimney being built from the bottom of it. The temperature has been kept at from 38° to 45° until March 15, since which time it has been kept at 48° to 50°, and sometimes even 55°. My bees are quiet, and they seem as happy as they do on an eve in June. I do not expect any loss of any account. Some of my neighbors put their bees out on March 8 and March 9, and we have had some very cold weather since. I visited one apiary to-day where 40 colonies were out, and they seemed as lively as on a warm day in June. But the bee-keeper said that they are much lighter now than when he put them out. A few of us bee-keepers here are putting our bees into the cellar in a different manner or arrangement of the hives, than I have yet seen described. Our bees wintered nicely one year ago, and if we all succeed usually well this year, I shall be tempted to give the plan in the Bee Journal. I have handled bees more or less for 10 years, and I have always made them profitable when I attended to them. The winter here has been good for clover, and if our bees continue strong until May 1, we shall be prepared for a grand honey season—our first.

Early Black Drones.—Mr. Gideon Crews, Gray's Summit,○→ Mo., on April 3, 1887, writes:

On April 1 I noticed drones flying from a colony of black bees. Is this not rather early for them in this latitude? Would it not be best to cut out the drone-comb in this colony at once, as I do not want any black drones?

[Yes; destroy the drone-comb at once, if black drones are not desired.—Ed.]

Bees in Good Condition.—S. H. Mallory, Decatur,♀ Mich., on April 6, 1887, writes:

Bees seem to be in good condition here in southern Michigan, this spring. We have had several warm days since March 1, and the bees have had a good flight, which was badly needed, as they had been confined since November, although packed on the summer stands. That is the way I winter my bees, and I think it the safest way in this latitude, if properly packed, as they can remain in the packing until settled warm weather.

Very Quiet Bees.—J. A. Reeds, Hinesboro,○→ Ills., on March 30, 1887, writes:

Yesterday morning I was smoking and overhauling my bees, and to my surprise I found a case where one had passed into the state of hibernation, as I supposed; for they were very quiet, and on raising the lid I called them dead. I took out the combs where they were clustered, took some of the bees in my hand, and still they seemed to be dead; I then threw them on the ground. There were many bees that had crawled into the combs. I took all the combs to the room where I keep them, and in an hour or two I passed the hive; the sun was shining on the bees, and to my surprise I could see them move. I had looked out the queen at first, and supposed she was as dead as the rest. So I thought I would experiment a little. I took the hive into the house, put it on the cook-stove, and put a slow fire in it. I could see that they soon moved more and more, and then began a hum. I have about two-thirds of them now alive in the kitchen. I will put them back on the stand as it gets warm. I believe I could have saved all of them had I not scattered them around everywhere. They were out of honey, and had destroyed all their brood. Will this colony do any good? I never heard of such a case, except when Dr. Miller found the ground squirrel.

[Several of such cases have been reported. If taken care of and fed they will be all right.—Ed.]

Feeding Maple Syrup.—Willis M. Barnum, Angelica,♀ N. Y., on April 1, 1887, writes:

So far bees seem to be wintering well; yesterday the air was full of them. I am feeding maple syrup, occasionally, to stimulate brood-rearing. All bee keepers are happy!

Wintered without Loss.—M. H. Freeman, Olustee Creek,⊸ Ala., on April 1, 1887, writes:

My 100 colonies of bees have wintered finely without any loss, and on the approach of spring they began gathering pollen and rearing brood. The earliest pollen gathered that I observed was on Jan. 26, from the arbor-vitæ, an ornamental tree or shrub that decks many Southern yards. Since then fruit bloom and many wild flowers, with whose names I am not familiar, have furnished the bees with honey and pollen. On March 24 I hived a large swarm which issued from a hybrid colony in a single story Langstroth hive. This is quite early, I think, as the usual time for swarming is in April.

Do Bees Talk and Hear?—R. M. Osborn, Kane,⊸ Ills., writes:

If bees do not have a language, and cannot hear, then I do not see how they manage to keep so well organized as to appoint guards at the hive-entrance, comb-builders, workers, etc., and committees to clean cells for the queen to lay eggs in, and to attend to her wants; to attend and see after the young larvæ; to cap brood and to clean cells for storing honey; to forage for nectar and pollen; to cap the honey and bring in water for necessary uses for the colonies; to examine and determine on the time necessary to supersede the old queen; to build the required queen-cell to rear a queen that may be the cause of the death of the old queen, unless she escapes by flight, and, after the cell is capped, a special committee of braves is appointed to guard the cell and keep the old queen from destroying it; for she is guarded by her loyal braves, and a committee of her loyal braves is sent out to look for a new location, and the loyal braves inform her that the virgin daughter is singing in her prison cell, and the guards are breaking the seals to release her from her 16 days' imprisonment. The old queen's loyal braves are a committee of thousands, and then she is informed that they will lead or conduct her to the selected location, and all civil business inside is suspended for a few minutes, the guards are relieved at the entrance, and join the old loyals in their flight to their "new home," and the young virgin queen, in about 5 days, takes a wedding flight with a crowd of fat, lazy drones, and returns the same day, if not molested by pirates; the colony is re-organized, and the drones are ordered exterminated.

Drones Flying.—Dr. H. R. Dorr, Worden, ♀ Ills., on April 2, 1887, says:

My bees are doing splendidly this spring. I have one fine colony of Italians that have drones flying today. Who can beat that for this latitude? Bees in this neighborhood were carrying in pollen on March 1. My bees were left to winter on the summer stands in chaff hives. I have not lost a colony for three winters in succession. I await a rich harvest for the bees this year.

View of an Apiary.—Mrs. J. N. Heater, Columbus, ⊙ Nebr., writes:

I send you by this mail a view of my bees in their winter quarters, to be placed in your "bee-keeper's album." I have always used the chaff hives for wintering, and with uniform success.

[It is a very pretty scene. The ice-covered hives and trees, in the sunshine, makes it attractive. It is placed in our bee-keeper's album, as requested.—Ed.]

Loss by Spring Dwindling.—Chas. F. Uhl, Millersburg, ⊙ O., on March 30, 1887, says:

I hear of a great many bees throughout this locality that were dying during the last two months. A great many of them were lost by spring dwindling. So far I have wintered mine all right; they all had a nice flight three days ago. But the coming two weeks will try them the hardest. I am generally successful in wintering my bees on the summer stands. I also use the Langstroth frame, and mostly the single-story chaff hive, and some two-story chaff and portico hives. My bees are pure Italians.

Our Various Climate.—W. J. Davis, Youngsville, ⊸ Pa., on March 30, 1887, writes:

The Bee Journal gives us Northern people some strange reading. For instance, in January and February to read of bees carrying in pollen and honey, drones flying and swarms issuing, while we in northwestern Pennsylvania are ice-bound, and not a bee dare leave the cluster. Yesterday the piercing wind and driving snow made out-door existence anything but comfortable, and this morning the mercury was just at zero. Possibly some of our Southern brethren, sweating in the shade of leafy trees, may gather some comfort by the reflection that up here we have "cool breezes." Truly, a broad land is ours. Before the ice leaves our Northern lakes, we may feast on the strawberries of the South; and before we dare commit a melon seed to the ground, the luscious melons of the South are in our market.

Fastening Foundation in Sections.—L. N. Tongue, Wonewoc, ⊙ Wis., writes:

Mr. E. W. H., of Indiana, on page 203, asks how foundation is to be fastened in sections where a groove is cut. The best, easiest and fastest way is to melt of wax two parts, and of rosin one part, by putting in a shallow dish over a lamp wick turned down so as to keep the wax just melted; not let it get hot enough to melt the foundation when dipped into it. Take the section in one hand, the foundation in the other, and dip it into the melted wax and place it in the cut in the section. You must have but little wax in the dish at a time. One can fasten in this way as fast as he can pick up a section, and it will stay, too.

Cold and Stormy March.—Arthur Todd, Philadelphia, ⊸ Pa., on March 30, 1887, writes:

The month of March has been very cold and stormy, with a bright sun, often a freezing wind affording bees no chance to fly without danger. Since putting my bees into winter quarters I have not disturbed them. We had one mild day some three weeks ago, and every colony was flying, so I hope for a slight loss. Yesterday and today we have had a blizzard; the temperature was 20° Fahr., and high wind and snows prevailed.

Rain Needed Badly.—B. F. Carroll, Dresden, ♂ Tex., on April 4, 1887, says:

Rain is badly needed in this State now. There has been none in places since last October. Bees are doing well here.

The Alsike Clover Leaflet.—James Heddon, Dowagiac, ♀ Mich., writes:

The new Leaflet on the [illegible] of planting Alsike clover is a move in the right direction. I say "right direction" because its propagation is not only of interest and profit to bee-keepers, but it is a most profitable plant for the farmer. Mr. Baldridge is one of those bee-keepers whose clear comprehension and long experience makes him authority on subjects connected with our chosen pursuit. Our wisest bee-keepers will distribute these leaflets by the thousands. I have copied it into my weekly paper, and a thousand subscribers will thus be given the benefit of it. As there are many persons in the world who live and suffer in the canker of envy and jealousy, there may be many bee-keepers who had better get some farmer neighbors to distribute the leaflets than to do it themselves.

Bees in Fine Condition.—J. C. Armstrong, Bromley, ⊙ Iowa, on April 6, 1887, says:

I took my bees out of the cellar on April 1, and I have never had them winter in better condition. I used to be anxious to give them a flight in mid-winter, but I have gotten over that. They had been confined 135 days, and had commenced breeding. They began gathering pollen the next day after their liberation. If the weather had required it, I believe I could have kept them confined a month longer.

Honey Yield from One Colony.—J. H. Higgins, Victoria, ⊸ Tenn., writes:

I desire to know what has been the largest amount of comb honey any one has obtained from one colony, as an average for the past 10 years. Will some one please answer through the American Bee Journal?

The numbers of the American Bee Journal for the first 3 months of this year have been very valuable to every one interested in bee-keeping—every number has been worth the cost of a year's subscription. The question department is a grand help to me.

Bees Working Hard.—T. S. Hall, Corinth, ♂ Miss., on April 4, 1887, says:

Bees are in fine condition; they are swarming, having wintered finely. Thousands of yellow drones are flying from the Italian colonies that are bringing in the honey fast. It is a beautiful sight to see the yellow Italian bees from 100 hives all at work, and all in a rush.

Lost None in Winter.—Abe Hoke, Union City, ⊸ Ind., on April 7, 1887, writes:

I reported 33 colonies in winter quarters on the summer stands—32 in straw hives, and one in a three-frame observatory hive in wood and glass. The one in the observatory hive is all right so far, and so are the 32 in straw hives. One was queenless, and was being robbed, so I united it with another; it had plenty of honey. Two or 3 colonies are light in bees, but have plenty of honey; 5 or 6 are not crowded with honey, and I have fed 8 of the lightest ones. I will have to feed if the weather does not change soon. I have not lost an entire colony in the three past winters. Maple bloom is entirely destroyed on account of severe weather.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1887, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—Sales have been larger this month than at any time since November, and prices average a little lower for comb than the above.

BEESWAX.—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 10@11c. Supply is large and sales are slow.

BEESWAX.—23c.
Mar. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4@4¾ cts. Comb, white, 7@13c. Market firm.

BEESWAX.—Scarce at 19@22c.
Apr. 4. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: Old comb, extra white, 12½@14c.; dark, 8@11c. Extracted, amber and candied, 3¾@4c.; extra white, 4½@5c. Outlook is gloomy, as rain is needed badly.

BEESWAX.—Scarce at 22@23c.
Apr. 5. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Mar. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Nice comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Mar. 29. C. F. MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.; white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@6c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 8@6½c.; in small packages, 6½@7c.; dark, in barrels and kegs, 4@5c.—Demand good.

BEESWAX.—25c.
Mar. 28. A. V. BISHOP, 142 W. Water St.

◆

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, $2.50. Five hundred will be sent postpaid for $10.00; or 1,000 for $15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

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Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

Convention Notices.

☞ The Wabash County Bee-Keepers' Association will meet at North Manchester, Ind., on April 20, 1887, at 10 a.m. AARON SINGER, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887. D. A. FULLER, *Sec.*

☞ The DesMoines County Bee-Keepers' Association will meet on April 26, 1887, at the Court House at Burlington, Iowa, at 10 a.m. All interested in bee-keeping are invited to attend. Articles sent for exhibition, to the Secretary, at Middletown, Iowa, will be exhibited and returned or sold, as directed. JOHN NAU, *Sec.*

☞ The ninth annual meeting of the Texas State Bee-Keepers' Association will be held at McKinney, Collin Co., Tex., on May 4 and 5, 1887. All bee-keepers will find a hearty welcome. No hotel bills to pay. An interesting programme is ready. Come one, come all. B. F. CARROLL. *Sec.*

☞ The Central Michigan Bee-Keepers' Association will hold the spring meeting in Pioneer Hall, Capitol Building, at Lansing, Mich., on April 26, 1887, at 10 a.m. A cordial invitation is extended to all bee-keepers. If any have troublesome questions, bring them with you, or send them to the President, at Lansing, Mich.

J. ASHWORTH, *Pres.*

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

There is no Mistake in insisting that—as in all other things, so in advertising—the best is the cheapest, no matter what its first cost may be.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages ; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

Advertisements.

PRACTICAL Bee-Keeper wanted for four months. Correspondence solicited.
15A1t **E. D. KEENEY, Arcade, N. Y.**

BEES AND QUEENS a Specialty.—Unteated QUEENS, in May, $1.00. After June 1st, 75 cts. Price-List of Full Colonies, two and 3 frame Nuclei, Hives, Foundation, &c., Free.
15A7t JOHN NEBEL & SON, High Hill, Mo.

100 Colonies of Italian Bees, Strong, first-class in every respect, For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

This Foundation runs **12 feet** to the lb.—

☞ The above is a **special offer**, and is a **Bargain** to all who can use that quantity.

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100 **COLONIES of Italian BEES** for Sale. DANIEL WHITMER,
9A9t South Bend, Ind.

BEES for Sale Cheap.—Black and Hybrid bees in ten-fame Langstroth hives, strong in bees, and on straight worker combs. Put on cars for $4.00 per colony. Will ship in hive or in light shipping-cases. No disease.
13A4t H. L. Pangborn, Maquoketa, Iowa.

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ITALIAN BEES in Heddon Hive	$4.00
QUEENS, Untested, 80 cts.; Tested...	1.60

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RELIABLE INCUBATOR CO.,
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100 Colonies of Bees

FOR SALE CHEAP.—In 8 and 10 frame Langstroth hives. Good condition.
14A3t I. R. Hadfield, Waukesha, Wis.

W. Z. HUTCHINSON,
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HAS written, published, and now offers for sale, a little book upon

"THE PRODUCTION OF COMB HONEY."

Its prominent feature is the exhaustive manner in which it treats of the non-use of full sheets of Comb Foundation in the brood-nest when hiving swarms ; but it touches briefly upon some of the most important points connected with the profitable production of Comb Honey.
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HEAD-QUARTERS for Pure Italian QUEENS. ☞ At prices that will surprise you. Write us for Catalogue and full particulars.
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EGGS FROM HIGH-CLASS POULTRY FOR SALE.
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Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

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BEES and HONEY,

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Management of an Apiary for Pleasure and Profit; by

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It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

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READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free. OLIVER FOSTER,
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AND BEE-KEEPER'S ADVISER.

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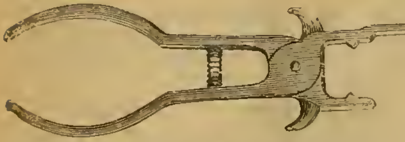
The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

Jones' Frame Pliers.



FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, **40** cts., by mail.

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BEE-KEEPERS' Guide, Memoranda & Catalogue for 1887 Free. Reduced Prices.—Jos. Nysewander, DesMoines, Iowa.
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Shirley's Contractible Bee-Hive.

Descriptive Circular now ready.
Send for it. Address, W. H. SHIRLEY,
14A3t Millgrove, Allegan Co., Mich.

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information,

Price 25 cents—in English or German.

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923 & 925 West Madison Street, Chicago, Ill.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

Hives, nailed and painted, $4.00 each.

HIVES READY TO NAIL.—In filling orders for these hives, in the flat, we make 6 different combinations, so that our customers may make a selection from the sample nailed hive, without waiting for us to quote prices, and the different kinds will be known by the following numbers:

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames, and the slatted honey-board. Price, **$1.55** each.

No. 2 is the same as No. 1, with the addition of one surplus story containing 28 sections without separators—interchangeable, but not reversible.—Price, **$2.00** each.

No. 3 is the same as No. 2, with *two* surplus stories as therein described. Price, **$2.50** each.

No. 4 is the same as No. 1, with the addition of one surplus story containing 28 sections in wide frames with separators, which can be reversed, inverted, and interchanged, the same as the brood-chambers. Price, **$2.30** each.

No. 5 is the same as No. 4, with *two* surplus arrangements as therein described. Price, **$3.00**.

No. 6 contains all the parts as described in the sample nailed hive. Price, **$2.75** each.

Those desiring the hives *without* the stand, honey-board or sections, may make the following deductions from the above prices: Stand, 14 cents; honey-board, 8 cents; and the 28 or 56 sections, as the case may be, at ½ cent each, respectively,

We will also make the following deductions on quantities ordered all at one time: For 10 or more hives, 5 per cent. discount; for 25 or more hives 7 1-2 per cent.; for 50 or more, 10 per cent.

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ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
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A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

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Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

ARMSTRONG'S New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

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A NEW HONEY-EXTRACTOR.

THE SIMPLEST and cheapest in the market. No special constructed can or vessel required. Any common molasses or whisky barrel or other suitable vessel at hand will do. It extracts as clean and fast as any other two-frame extractor. It is suitable for American or Langstroth frames up to 13x20. It weighs only 8 lbs. ready for shipment. Price in the flat, $2.50; set up, $2.75. State right to make, use and sell, $100. Date of patent Feb. 9, 1886. Send for circulars to the inventor and manufactor. J. C. MELCHER.
10A6t O'QUINN, Fayette Co., TEXAS.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

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SEND 10 CTS. FOR POSTAGE &c.
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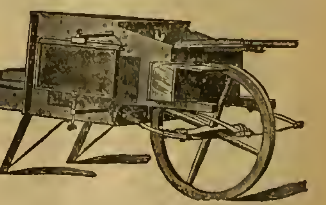

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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. April 20, 1887. No. 16.

True Worth is in being, not seeming,
In doing each day that goes by
Some little good, not in the dreaming
Of great things to do by and by.
For whatever men say in their blindness,
And in spite of the fancies of youth,
There is nothing so kindly as kindness,
And nothing so royal as truth.

◆

It is Announced that an apiarian exhibition will be held in Vienna, Austria, this month, at the Botanical Gardens.

◆

We Acknowledge the receipt of Nos. 1 and 2 of the British "Guide-Book" Pamphlets. They are written by Mr. T. W. Cowan, editor of the *British Bee Journal*, and published by Mr. J. Huckle, Kings Langley, Herts. They describe the making of appliances for bee-keepers, in a very lucid manner, and are nicely illustrated.

◆

"**The Open Court,** a new Fortnightly Journal devoted to the work of establishing Ethics and Religion upon a scientific basis." This is the title of a new periodical just started at 175 La Salle Street, Chicago, Ills., under the able management of B. F. Underwood, at $3 a year. It is beautifully printed on good paper, and its articles are highly entertaining, representing all phases of religious thought.

◆

Geo. Neighbour & Sons, of London, England, state that through the AMERICAN BEE JOURNAL and *Gleanings* Mr. Heddon and his "new hive" are "well known in England." In a recent letter, they say that as they wish to make some hives containing "some of the features" of Mr. Heddon's, and desire to "do honor" and "not be considered pirates," they send ten dollars as a "token of respect and appreciation." As the hive named is not patented in England, this shows that Messrs. Neighbour & Sons are most scrupulously *honorable* and *just* in their business relations. With pleasure, therefore, do we put this news item *on record*, as a pattern for bee-keepers everywhere.

Bees vs. Grapes.—Dr. B. F. Dunkley, of Missouri, writes thus to the *Rural World* :

> Ten years ago a neighbor transferred some bees from a common box-hive into a movable-frame hive. He made holes in the sides of the frame and pushed in hard hickory pins to hold the combs in the new frames, and to make the combs safe he wrapped the frame round with spool cotton thread. The first thing the bees did was to stick the combs fast with wax, then they cut away all the threads, mended all the combs, and then ate out all the *hickory pins* where they came into a comb.

What a prodigious yarn. When bees will eat hickory pins and iron nails they ought to be chained up like tigers, and not allowed to roam at will ! !

Dr. D. makes a further statement in corroboration of the above. He says :

> Many years ago I put a can of honey in my cellar, covered with two pieces of sacking, and over that a piece of oil-cloth ; the first thing we knew the cellar was full of starving Italian bees (it was a very dry time), so full we could not go into it. They had *cut their way through the covers* and left half a six gallon jar of dead bees smothered in the jar, but no honey.

Now the bees are charged with cutting their way through oil-cloth, as well as eating hickory pins ! Next it will be said that they cut through a brick wall, or an iron door !

◆

Big Bee-State.—Mr. John H. Rupert, of Woodcock, Pa., states his complaint in these words :

> About that "find of wild honey" in this State (page 179), the editor says: "Who says that Pennsylvania is not a bee-State ?" No one says so that I know of !
>
> As another proof that Pennsylvania is a big bee-State, I will add that, last fall, while out hunting with D. A. Harman, we saw bees in the top of a large chestnut tree ; we cut the tree down and found one pint of bees and about a tea spoonful of honey.
>
> I would like to ask Messrs. Cousins and McCracken how they let that honey down with a rope ?

The word "big" was omitted by the printer. We wrote it thus : "Who says that Pennsylvania is not a big bee-State ?" The experience of Mr. Rupert presents the exact opposite to that of "Cousins and McCracken"—but then it is an enormous State, big enough for all kinds of "experience" ! !

If they did not "let the honey down with a rope," they said they "roped it in" all the same. The whole story is very "ropy."

◆

"**Where to Keep Honey ?**" is the title of Leaflet No. 3, uniform in size with Nos. 1 and 2, and published at the same prices. This is in accordance with the recommendation of Mr. G. M. Doolittle, on page 245 of this number of the BEE JOURNAL. Its judicious use will undoubtedly increase consumption. Heretofore we have printed the first line thus : "American Bee Journal Leaflet No. 2." We shall hereafter omit the words "American Bee Journal," and simply call them "Leaflet No. 2." or any other number, as the case may be.

◆

Onions inhaled cause sleep, rest, and refreshment. The soldier on his march, and the exhausted worker gets great strength from eating the onion. Tie a fresh onion around the neck and bruise it to make its odor thorough, and you secure sound sleep from its nightly inhalation, so says Daniel R. Clymer.

J. R. Lindley, of Georgetown, Ills., died on March 6, after an illness of one week. He leaves a wife and three little children to mourn his loss. Mr. Lindley was at the Indianapolis convention, and we little thought then that it would be the last time he would attend such a meeting. We offer our condolence to the stricken family of the brother departed. May Heaven protect and bless the little ones. We hope he carried some life insurance. We do not believe any one has a right to bring children into the world, and then not provide for them in case of death.

◆

We Wish to Add our testimony in favor of Alsike clover, says E. W. Powell in *Farm, Stock and Home.* We raise it for the honey it contains, but consider it a splendid grass, either for hay or pasture. Our practice is to sow timothy with it for hay, as it will fall down and mat if sown by itself. Of course we only speak from our limited experience, in our own soil, which is a sandy loam from which the timber has been cleared. Alsike can be cut but once each season for hay, but will make a fine fall pasture. It also bears seed the first crop, if there are any honey-bees in the neighborhood to fertilize the flower.

◆

Bee-Keeping in Japan.—From *L'Apicoltore*, of Milan, Italy, we glean the following item of interest :

> Chevalier L. Sartori, of Milan, was, a few days ago, favored with the visit of two Japanese delegates, viz., Messrs. G. R. Hida and H. Danke, Councellers of the Japanese Ministry of Agriculture and Commerce. The distinguished visitors had not been long in Mr. Sartori's well-known apiary before it became evident that they were not novices in matters connected with bee-keeping, as their numerous and pertinent inquiries plainly testified. Nothing, it appears, escaped their observation, and much interest was exhibited when examining the new large plates recently published by Mr. Sartori, with explanations in four languages. In fact, before bringing their visit to a close, they left an order for 400 sets of these illustrations for the Government of Japan, upon which notes will be inserted in the Japanese language. Of course, the natural beauty of the Italian bee was, of itself, an object of no small interest, and a few colonies were ordered for shipment to their country. They were, however, not a little surprised when Mr. Sartori placed before them two large plates illustrating Japanese bee-keeping. Before leaving, they expressed themselves highly pleased with what they saw in Mr. Sartori's noted establishment.

◆

New Catalogues and Price-Lists are on our desk. Those desiring to obtain any of them should send to the addresses given—not to us. The following have arrived during the past week :

Thomas S. Wallace, Clayton, Ills.—4 pages—Queens.
E. A Sheldon, Independence, Iowa—1 page—Apiarian Supplies.
Cheney & Comstock, Sac City, Iowa—2 pages—Bees and Supplies.

◆

Eucalyptus Honey for Medicine.—M. Guilmith, the French traveler, while on a journey in Australia, discovered some bee-hives in a gigantic eucalyptus tree, of 120 metres in height. The honey was strongly scented with the perfume of the flowers of the tree. Prof. Thomas Karraman has examined it, and believes it to have beneficial medicinal properties.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the Journal. If you are in a "hurry" for replies, do not ask for them to be inserted here.—Ed.]

Bees Leaving Hives in January.

Query 406.—Can you give any reason why bees should swarm in January, leaving honey and brood in their hives, also queen-cells and a few bees? The day they swarmed it was very pleasant, and the sun was shining.—Louisana.

Discontentment; something was wrong in the hive.—H. D. Cutting.

We have known lack of pollen to cause them to leave, but there may be other causes, that we cannot know.—Dadant & Son.

They may have swarmed for the same reason that they usually do, only they were "rushing the season" a little.—W. Z. Hutchinson.

Such abnormal swarming is usually confined to weak colonies and to nuclei. They become discouraged and swarm out. Pleasant days after a stress of bad weather is the time they usually depart.—J. P. H. Brown.

No. Being entirely unacquainted with the details of the case, and the actions of the bees in your latitude, I do not know whether it was satisfaction or dissatisfaction which caused them to swarm.—James Heddon.

This has long been a puzzle. It seems probable that the hive was in some way distasteful to the bees; but this is only a guess.—A. J. Cook.

I should say that it was what we call here at the North "swarming out." Dissatisfaction of some kind is thought to be the cause where bees so swarm *here* in April and May.—G. M. Doolittle.

I suppose it is something as they might do at the North, in April or May. Sometimes it seems a mere whim, and sometimes a result, perhaps, of spring dwindling, not enough bees being left to take care of the brood before leaving.—C. C. Miller.

Bees, sometimes in my early experience, left the hive most unaccountably. I now think the reason of their so doing was, the hive was too large for possible use. Probably in the case of the querist, too much room was given.—J. E. Pond.

I can give reasons which are satisfactory to myself, but they may not be to others. I believe that bees never "swarm out" at a time when there is a quantity of young bees in the hive, unless they are absolutely starving. Three causes may contribute to the "swarming out" mania: First, starvation and discouragement; second, a desire to supersede the queen, and third, when there are a few young bees in the hive, and the bees take a general flight—nearly all the bees take wing—there being no young bees to stay in the hive with the queen, she becomes excited and takes wing with the frolicking bees, and when out with the queen they may or may not return to their home without the interference of the apiarist.—G. W. Demaree.

I cannot give any reason from the data given. I have had fair colonies swarm out one or more times each day for a week, just after putting them out of the cellar. Sometimes they tried to enter other hives, which would demoralize matters. Such colonies, after they have had one flight, I shut in the hive and feed warm syrup until they learn to stay at home. If the day was warm and the bees appeared uneasy, I might release them toward evening. In this way I have saved many colonies from ruin.—C. W. Dayton.

Abnormal swarming generally results from dissatisfaction with the hive, surroundings, weakness of numbers, or something else distasteful to the bees.—The Editor.

Bees Sipping Blood.

Query 407.—Recently I was skinning a steer that had choked to death, when I saw several bees eagerly sip the blood as it flowed from the several veins. 1. Did any one ever notice bees do this before, and at what season of the year? 2. Can you suggest any reason for their gathering blood, as plenty of water was near them?—Mo.

It is not strange.—C. W. Dayton.

I never saw anything of the kind, and I could not guess the reason.—G. M. Doolittle.

Similar instances have been reported. There is probably something about blood that pleases the taste of bees.—W. Z. Hutchinson.

1. I never saw it. 2. Possibly they were after the salts in the blood.—C. C. Miller.

Such statements have been made before. That bees are partial to such vital liquids is a fact, whether we always admire their taste or not.—A. J. Cook.

I never had any "blood suckers" among my bees; but I have noticed that bees sometimes resort in the spring of the year to stale water, particularly if it is alkaline. 2. I can assign no reason for their depraved appetite, unless it is a desire for salt.—J. P. H. Brown.

2. The bees may have been without bee-bread and in need of nitrogenous food. Such bees may have been benefited by feeding them eggs or milk with syrup or honey; but in the experiment I once made in feeding eggs, I could not see that it was an advantage.—G. L. Tinker.

1. I never saw a case of this kind that I remember. 2. For the same reason that they gather many other substances, the reason for which we do not know.—H. D. Cutting.

I have noticed that bees will work on the offal of slaughtered animals, and will visit the vaults of privies; and I have seen them sipping at the refuse of the soap kettle. I think that they are attracted by the salts nearly always present in such refuse matter.—G. W. Demaree.

I never heard of such a case before. Probably the bees found something in the blood that was needed. It may be the salt in the solution was the thing gathered. They probably went for the blood for much the same reason that they visit muck and manure heaps at times. *Why* is a mere matter of guessing.—J. E. Pond.

Quite probably the bees needed the alkali found in the blood. Under certain circumstances they will take stale and salt water. They have been experimentally fed with eggs, meat and whisky by many at different times with doubtful effect.—The Editor.

Eight-Frame vs. Ten-Frame Hives.

Query 408.—I use an 8-frame Langstroth hive; if I change to one having 10 frames, will I get fewer and larger swarms? Will I get more comb honey?—Y., Maryland.

Other conditions being the same, you would.—J. P. H. Brown.

Yes, to both questions.—Dadant & Son.

No, not if rightly managed. To the second part I would say no, keep your old hives.—A. J. Cook.

You will get fewer and larger swarms. From foregoing reports in your latitude, you ought to get more honey.—C. W. Dayton.

My experience says no to both questions; certainly no to the last, for this locality.—G. M. Doolittle.

With 10 frames I think you will get larger colonies. As for the honey, it will depend upon the location.—H. D. Cutting.

Likely you will get fewer swarms, and possibly less comb honey. I do not think there will be any material difference in the size of the swarms.—C. C. Miller.

No, neither, but you will get wider lumber for covers and bottoms, and more ranges of comb in which your bees might starve to death in winter. You will both gain and lose some valuable functions. On the whole, I think you will lose more than you will gain.—James Heddon.

With proper management you would get no more swarms from the former than the latter, nor would the swarms be larger with but few exceptions. You would fail to get as much comb honey unless you practiced a system of contraction of the brood-chamber at the proper time.—G. L. Tinker.

I do not think any appreciable difference will be found. I prefer a 10-frame hive, as I can diminish or increase it to suit any contingencies that may arise. A large hive is better than a small one for that reason.—J. E. Pond.

It would depend upon your management, as to whether you will get any more honey. With a good colony I have found that a section-case the right size for a 10-frame Langstroth hive will be filled as quick as a smaller one the proper size for an 8-frame hive, and the tiering-up will go on all the same. Of course the wider cases give a larger yield, because they hold more sections than do the narrow ones. The swarms are not always larger because they come from a larger hive. It is a well known fact that small hives encourage swarming. The 10-frame hive is best for this climate, as bees suffer less in the heated season, and we can contract them to suit the size of the colony at other times.—G. W. DEMAREE.

You will probably get larger swarms in many instances; in others not. You will also get more honey per colony in many instances; in others not. With a large brood-nest there is a liability of having considerable honey stored in the brood-nest, that might more profitably have been stored in the supers. Successful bee-keeping does not necessarily depend upon *large yields.*—W. Z. HUTCHINSON.

The difference is so slight that it would not pay to change. You might have the new hives to hold 10 frames, if so desired.—THE EDITOR.

For the American Bee Journal.

A Poetical Critique.

WM. F. CLARKE.

Dear sister Lou, that poetry [page 197]
Which tells your tale of woe,
Contains some words that seem to me
To read *malapropos.*

You want a better rhyme for "hum"—
"Sun" is not just the thing;
A word like "plum," or "drum," or "mum,"
The proper sound would bring.

"Mum" is the word, so please to write:
"The bees' melodious hum,
Was hushed, 'till near the noon-tide's height,
They kept no longer mum."

"Sublime" is not well matched by "shrine,"
"Time" is a better rhyme.
They must harmonious notes combine
Who would Parnassus climb.

"Arcadian haunts that poets love,
Their mystic charms combine,
To form a beautious arch above
An apiarian shrine."

As "sell" and "veil" don't harmonize,
You want a mate for veil.
Therefore, suppose the rhymester tries
"Rail," "pail," "fail," "tale," or "sale."

Then read, "oh! oh! her comrade said,
My honey should bring sale
Four times as high—then sudden fled,
'A bee's got in my veil!'"

If you your poetry would "sell,"
Like honey, it must be
Neatly sealed over, finished well,
And "fixed up to a T."

Guelph, Ont.

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. This should be scattered into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents; 100 for 50 cents; 500 for $2.25—all post-paid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest: ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

House for Keeping Comb Honey.

G. M. DOOLITTLE.

I have been requested to give the readers of the AMERICAN BEE JOURNAL an article on "how to build, and the management of, a honey-house; *i. e.,* a building in which to store surplus comb honey as fast as taken from the hives, in order to keep it in good condition, etc." This is a question of great importance to every producer of comb honey, and one that I feel incompetent to answer; but having had a little experience along that line, I will touch on that experience, and with it tell how I should build such a house for myself.

That honey often so deteriorates after being taken from the hive, that it is almost worthless, no matter how nice it is when harvested, shows the importance of this question, and if we can by any means provide a sure way, which is simple enough to be successful in the hands of the average bee-keeper, so as to keep our honey gaining in richness of flavor and greater density of body, as it does when left on the hive, less the travel stain of the bees, we shall have taken long strides toward the solving of how to create a demand for our production.

Still further, if we could simplify and reduce the plan so as to meet the wants of every consumer of honey, that they, too, could have every ounce of honey in their possession growing better with each week and month which passed away, instead of retrograding, we would hear less of low prices and over-production.

Put the question to the consumer of honey: What shall we do with honey to preserve its present condition, or make it a little better if possible? Nine out of ten will tell you that they keep it in the cellar, a greater mistake than which could not well be made. If Mr. Newman would get up a little pamphlet on "Where to keep honey," to go with his other excellent and instructive little books, to be distributed among the public, and for bee-keepers to hand to every one to whom they sold a pound of honey, I have no doubt but that it would increase the consumption of honey one-fourth at least, providing they (the consumers) will *believingly* read it. It matters not how much pains the apiarist may take to get his honey in nice shape for the consumer, if the consumer places it in a damp, cool cellar for two weeks before it is eaten. During that time the nice, good-flavored, well-ripened honey has changed to thin, unripe honey, taking the flavor of the cellar or damp room, so as to be unsatisfactory to the taste, and by the end of a month it has so deteriorated as to be nearly unpalatable. All should know, whether apiarist or consumer, that a dry, airy, warm room is the only proper place to keep honey. But I have digressed.

When I first began to have honey I kept it in a pantry on shelves, the pantry being near the kitchen stove. Here it always kept well, for the piles were not dense enough to exclude the warm, dry air from permeating the whole. Later, as larger crops were obtained, I kept it in a room on the north side of the house. Here the centre and back part of the pile "sweat" or deteriorated badly, and I began looking about for the cause. I soon found it in looking back over the old pantry, and visiting Mr. Betsinger, who at that time kept his honey in a little outside house about 6 feet square, which was painted dark, and had on it a rusty tin roof, so as to "draw the heat," as it is termed. In putting the two together I built my present honey-room in my shop which I have often described in the bee-papers.

I had thought myself perfectly suited with this, until the past fall when we had many damp, foggy, rainy days in succession, during which the sun did not shine to warm up the room in the least, nor could the windows be raised to allow a circulation of air, only to make matters worse. Seeing that something must be done, as the honey was beginning to show signs of "sweating," I brought into use an oil-stove, and with it I soon had the room warmed to 90°, which made it all right again, except a few sections of honey near the bottom and sides of the room where there was a poor circulation of air.

There are some points greatly in favor of a honey room in a shop like mine, such as having all under the same roof, so that the work of storing, crating and preparing for market can all be conducted with little labor; but, on the whole, I think there are more points, considering the question in its fullest extent, in favor of the honey-house being a separate building, but only a few feet away from the shop or general work room; so that were I to build again, I would not have the honey-house connected with the shop on account of its lack of exposure to the rays of the sun, imperfect ventilation, etc. My ideas now of such a house for 100 colonies of bees, are as follows:

Within 4 feet of the shop or work-room, at the south side, and even with the west end, I would build a house 8x10 feet square, and 8 feet high. This I would cover with cove ceiling to be painted black or dark red. For a roof I would use ¾-inch lumber covered with sheet-iron, and painted at the joints to prevent leaking, but not painted elsewhere, for sheet-iron will get hot in the rays of the sun beyond paint of any color. Near the bottom and on the east, south and west sides I would have small windows for ventilation, which should be kept open at all times when the mercury would rise above 90° inside. These are to be secured and made so as to be opened (by sliding) from the outside. On the south side and near the top, I would have an ordinary window for light, the upper part of which should revolve to let bees out, which may come in on the honey. The door should be on the north side to correspond with one in the south side of the work-room, and both floors of the two buildings should be on a level, with a plank walk connecting the two.

For the inside of the honey-house I would have two platforms, raised a foot or 18 inches from the floor, one on the west and one on the east side of the room, to pile the honey on and leave a passage-way from the door to the window, between them, for convenience in storing and manipulation. The platforms should be made of slats set up edgewise, about 2 or 3 inches apart, so as to admit air freely, and the fumes of burning sulphur, if such is required. Such slats should also form the support for the sides and ends to the piles of sections, the slats being set off 6 inches from the inside of the building, so as to allow a free circulation of air in every direction.

A honey-house fixed as above, together with an oil-stove, will give apiarists complete control of the matter of preserving and ripening honey to their satisfaction. The oil-stove I prefer is the "Adams & Westlake."

Borodino,⊙ N. Y.

For the American Bee Journal.

Will Patents Protect Poor Inventors ?

R. V. MEIGS.

On page 185, I find an article from Mr. J. E. Pond, of Massachusetts, which is full of splendid sentiment, yet which carries a false and somewhat dangerous idea, as I understand our American patent system—a branch of law which I have made a special study for years.

I refer to the idea that an inventor, if poor, and his device of ready manufacture, cannot protect his rights, but must become a victim to every one who would infringe his inventions. Such is not the case, and I very much regret that any such idea should have been put forth. We ask nothing better than a case in patent causes, in which a valid patent has been infringed, and that too from an inventor without one cent. It is true that the getting of the *first* decision in the United States courts is sometimes quite expensive, but after a patent has been thus sustained, all further prosecution and collection for infringements is, as a rule, quite easy and of little expense to the owner of the patent. The expenses fall much heavier upon the infringer, and his defeat is sure, and even the few rogues that are inclined to violate the just principles so well laid down by Mr. Pond, will soon, to their peril, learn better.

I will not take up valuable space with this somewhat out-of-place subject, so much as to go into any explanation, for I am sure that all who give the matter their best thoughts, on general principles will at once recognize that our Government has not left our honest inventors without protection because they may be poor, or their inventions relating to manufactures which are used in a small way by many persons.

The American patent system is among the cheapest in the world, as well as the best to protect, and the many very valuable inventions of poor but ingenius Americans, who have become rich through patenting them, and at the same time doubly enriched the world, attest the truth of the position taken in this article.

Detroit,○ Mich.

[As there has been one article on each side of this question, let it end here. We do not wish to give space to further argue the matter.—Ed.]

Bees as Pest Carriers.

A correspondent in California has sent us an article from the *Riverside Press and Horticulturist*, asking that it be inserted in the American Bee Journal with comments. Here is the article:

I am ready to prove that the setting of fruit is not in the least dependent upon bees. I am a pioneer, and was engaged in buying and selling fruit in 1851. The orchards and vineyards about the Missions were as fruitful then as now, or have been since; yet no bee was seen in California until four or five years later. The first bees imported into California were brought by a Mr. Sheldon, who placed them in charge of B. F. Kennedy, of Santa Clara, and on returning across the bay, met his death on the ill-fated "Jenny Lind." These 2 colonies were soon under my charge. I transferred them into Langstroth hives, and sent them on their mission of usefulness.

Up to that time the orchards and vineyards never failed in their abundance of fruit. While the injury done by bees to raisins in the Santa Ana Valley has been great the past year, the injury to oranges has been greater. The bees carry the red scale from tree to tree. This scale is the most destructive and the most difficult to destroy of any that has visited the Santa Ana Valley. The young of this pest are almost too small to be visible to the naked eye. The wingless females are carried from tree to tree by the bees. Simple declarations without the evidence on which they are founded, are valueless. I will therefore give the facts which establish my proposition.

First, the manner and habit of the bee in gathering pollen makes it practicable to collect these microscopic mites with pollen and carry them from one tree to another. That they do this, is evident from the fact that the lemon tree, which is always in bloom and covered with bees, is the first to be infected with the red scale.

Second, I planted a small orange orchard two years ago. They were taken from a nursery remote from any red scale, and appeared to be entirely free from that pest. Soon after they began to bloom, the scale appeared, while those trees that did not bloom at all were free from the pest. Hence, it is evident that the bees visiting the blossoms brought the scale. There has been a remarkable increase of this pest during the past season. Many orange groves have been dug up and burned solely on account of the damage of the red scale.

There is plenty of room in California, as yet, for both industries, but they cannot flourish together. Our valley was once a good sheep-pasture, but when it became evident that it was more valuable for fruit than for wool and mutton, the sheep had to leave. When it becomes evident that our soil and acreage are more valuable for another industry, horticulture will modestly and silently retire.—*Hiram Hamilton, of Pomona.*

Our California correspondent desired us to send it to Prof. Cook, of Agricultural College, Mich., and ask him to reply to it. We did so, and here is his reply:

I am not prepared or disposed to contradict or call in question any of the statements of Mr. Hamilton, except the first one. In that he unquestionably makes a great error, and this one mistake invalidates all the rest. He says: "I am ready to prove that the setting of fruit is not in the least dependent upon bees." This statement is a serious error, although Mr. H. is not very blamable for making it. He says that previous to 1851, California had no bees, but the crops of fruit were as good as those secured since that time. This is very likely true; but does it warrant the other statement?

There is no truth of science better established, than that bees are of great service in the fruiting of most of our plants, including our varieties of fruit trees. Often the bees are indispensable to a partial, not to say a full, crop. Let us see how Mr. H. erred in his conclusions:

It must be remembered that wild bees and other insects may and do fertilize the flowers just as well as bees if they visit the flowers. There are many such insects, especially in California where there is no rigorous winter to kill off the unprotected insects. Here in the North and East we must have bees for our plants that blossom early, as there are too few wild insects to accomplish the work. I have lived in California, and remember distinctly the swarms of insects—not bees—that I used to collect on the fruit-bloom. We see then that fruitage was possible in California before bees were introduced. But now there are acres of orchard where there were rods or even feet then. So it does not follow that the bees are not necessary now. It may be that the wild insects would be entirely inadequate to the task, and that the bees are very necessary.

That bees may and do carry and spread the newly hatched bark or scale lice is certainly true. Yet this should not condemn the bees in the mind of the sensible man. If bees do not work on the bloom and fertilize the flowers, other insects must and will spread the pests. It is only whether it shall be bees or other insects. Again, these scale lice will be spread even though there are no bees, or even any insects at all aside from the wee lice themselves.

The apple-tree scale louse is a serious pest here; and spreads just as the orange scale lice, etc., do in California. But the small, active lice here hatch not till the bloom is all gone. Hence it must be wind and birds that scatter these pests of our orchards; and they would do the same in California. The wind in California blows so fiercely that it carries sand with so much force as to wear through window glass. Who shall say that it will not carry these minute lice even to a considerable distance?

Our California friends need the bees to insure full crops, and they must spray their trees with the kerosene and soap mixture, or some other efficient insecticide, or the scale lice will bring their orchards to naught.—A. J. COOK.

For the American Bee Journal.

Selling Dark Honey, etc.

H. O. KRUSCHKE.

I started in the spring with 30 colonies in good condition. The honey-flow was not as abundant as it would have been had we not had such unprecedented drouth and heat. What honey my bees did gather was dark, not one section of it being light honey. Basswood yielded nothing. I took off 1,000 one-pound sections, and 400 pounds of extracted honey, and increased my apiary to 72 colnnies.

I began to sell the honey about the middle of August. I took some to the stores in Necedah, and received 12½ cents per section; they sold it out for 15 cents. That suited me better than trying to peddle it myself. I considered the price all it was worth, and more than I could expect to realize by shipping it to distant markets. But a "damper" was soon put on this price. Some of my neighbor bee-keepers in another town came some 15 miles through sand knee-deep, and then sold their honey on the streets at 10 cents per pound section; yes, even down to 3 for 25 cents. Their honey was fine and light-colored. Of course that stopped my sales, and I did not try to sell then.

The most of the customers preferred my dark honey to that nice white, remarking that mine was the best honey that they had seen that year; thick, and a rich flavor, and that it tasted *like honey!* etc. So do not say that dark honey is not fit to put into the sections, or that it must be sold for wagon grease. No, it is just as nice as the whitest—you have only to find the customers who like honey; and do not run it down as regards quality, as so many bee-keepers do. I always say it is as good as any, and who will say that it is not?

My extracted honey I sold to families at 10 cents per pound, or 12 pounds for $1. No one thought that the honey was not nice, or seemed to care about its being dark. Long before Christmas my honey was sold in a small town of not over 1,200 inhabitants. I could have sold as much more up to this time if I had had it.

I am satisfied with the result, and do not care to be instrumental in raising the price of honey. It can be done however, but of course not by "can't." "Can't" never has accomplished anything. If I owned all the honey in the county I could get what I asked for it, but perhaps I could not sell it all at a high price, but at better prices than are ruling now. But the question of having a right to do so must be left out altogether. I have a right to get all I can for anything which I produce, and have a right to combine with co-producers.

I do not want 25 cents per pound for honey. I can make a good living at 10 to 12 cents per pound, and let others live also. Those who cannot produce honey at these prices must look for something better. Bee-keeping is not a business to get rich at—at least not in a hurry. If riches are what you are after, seek elsewhere. But if your object is to enjoy life and health, and wish others to enjoy theirs, you can reach that goal at bee-keeping.

Deuster,⊙ Wis.

For the American Bee Journal.

Bees have the Sense of Hearing.

CEYLON NILES.

In reference to Mr. Fox's article on this subject, on page 201, I would like to give my experience. We should not jump at conclusions, "but prove them as we go." I have had 37 years' experience among bees, but I find that I can learn something new each year.

In June, 1869, I had a colony swarm and cluster on an apple tree. I hived it and placed the hive on the stand. In about 20 or 30 minutes I went to the hive and there was not a bee to be seen or heard. I rapped on the hive and found that the bees were there. I thought something was wrong, so I sat down in front of the hive and watched. In about 15 or 20 minutes a bee came and made a circuit of about 8 feet above the hive, and made a humming noise something like a drone. The bees inside the hive heard the sound and answered it. The bee kept coming nearer and nearer as it circled around the hive, till it rested on the alighting-board, then two or three bees came and met it. The bee went into the hive, and was in there just a moment when all the bees came out of the hive and went to the woods.

In July, 1873, I had another colony quiet down in the same manner after I had hived it. I stopped the entrance so that no bees could go in or out, but left it so that they could have plenty of air. I watched it, but there was not a sound to be heard inside the hive. In about half an hour a bee came and made a circuit around the hive, making a humming sound, and the bees answered it. When the bee reached the alighting-board, I killed it. In a short time the bees quieted down. In about 15 minutes there came another bee and made the same sound, and the bee answered it. I killed this bee also. After awhile the bees quieted down as before, when in about half an hour back came three bees, and I killed them as I did the others. I watched them the remainder of the afternoon, and no more bees came back. About 6 o'clock I opened the entrance of the hive, when the bees came and clustered on the outside of the hive, but quieted after awhile. The next day the bees went to work all right.

The same week I had another colony act in nearly the same manner. I stopped the entrance and watched as before; eight bees came and I killed them. About 6 o'clock I opened the entrance, and the bees clustered on the outside of the hive. The next day they went to work all right.

I have had 2 or 3 colonies act in the same way since. This convinces me that bees can hear. I would say to those that let their bees swarm, if they do not want them to go to the woods, to try this plan and report through the BEE JOURNAL.

Schuyler's Lake,⊙ N. Y.

Read at the Albany, N. Y., Convention.

The Depression in the Honey Market.

LYMAN C. ROOT.

At the last meeting of this association, held at Rochester, resolutions were adopted relative to the necessity of developing our honey market, and I was appointed as a committee of one to take such action, and make such investigations as would be likely to secure progress in this direction. These resolutions were most comprehensive, and indicated very distinctly a great work which might be accomplished. There are many who would be glad to see these results reached, but they are not induced to unite in the work. No work of this importance can be accomplished without united effort.

I shall endeavor to show some of the causes of the depressed condition of our honey market, and suggest some of the remedies. I have spent much time during the year in very close observation. Had the necessary financial aid been at hand, much might have been accomplished which would have resulted very beneficially. I should have visited the different markets of our State, and made thorough investigations, offered premiums for the best and most attractive honey-labels, and would have offered special inducements for the best and most concise leaflet for general distribution with each package of honey sold. I should have experimented thoroughly in an endeavor to evaporate honey, until the entire moisture it contained was removed, so that we might secure pure evaporated honey in drops of suitable size to be sold as confectionery.

I believe that the time of one person qualified for the work, might, by the united assistance of the bee-keepers of the State, be profitably employed during the entire year, in placing honey as an article of food and medicine, before the public as its merits may honestly demand.

It would require more time than could be well given to one essay, to trace back through the past, the various causes which have combined to produce this depression under which we are at present laboring. Until about the year 1870, honey was produced almost exclusively in boxes holding from 2 to 8 combs, and weighing from 5 to 12 pounds. These boxes were made with wood top and bottom, 4 corner posts, and 4 glass sides. When they were well filled and capped, and all made very tight by the bees sealing all openings with propolis, they were in much better shape to pass through the hands of the dealer and into the hands of the consumer, than much of the honey produced by the later methods. But here arose objections. In removing the first glass and comb, and while using the remainder of the honey, the consumer was much annoyed, and the leaky package was often a great nuisance.

To do away with these objections as well as to secure other advantages, the single-comb section came into use. Consumers seemed willing to pay for glass on each section, for the sake of the advantages gained. Unquestionably this practice has to quite a degree diminished the amount of honey consumed, particularly those of moderate means. I have been an advocate of glassing sections, from the fact that the emergency seemed to demand it, and I do not yet see how honey can be sold in single sections, properly protected, without too great an expense to the producer, unless it is glassed.

About the time the single-comb section came generally into use, bee-keepers became very enthusiastic over the process of throwing honey from the combs by centrifugal force, and many other new methods, which resulted in great effort to produce large amounts of honey. This was carried to such an extreme, that greater effort was given to the quantity to be secured than to the quality. In the great haste to secure large yields, much of it was hurried from the combs before all the cells were capped. In glassing sections, many combs were started from the side of the boxes, and in many ways it has been put up in packages that have leaked and were very disagreeable to handle. All of these things have had a tendency to lessen the demand. The reduction in the price of extracted honey has come largely from the fact that it has been subject to adulteration. This was the case, as might have been expected, when prices ranged high; but as they are becoming reduced, adulteration is discontinued.

Unquestionably, the greatest cause of the late depression in the honey market is the general depression of the times. The masses have, from necessity, been compelled to economize; this would prevent the use of comb honey to a great degree. It is not bee-keepers alone who have been affected by these depressing times.

That honey has not been more largely used, is not to be attributed to its undesirability as an article of food, for that is established beyond dispute. The effort in the future must be to not only lessen the cost of production, but at the same time furnish it in such perfect shape as to satisfy all the demands of both the dealer and consumer. In connection with this, the point must not be lost sight of that the general public still needs a good deal of enlightenment as to the intrinsic value of honey for the many purposes for which it may be used.

The practice of sending of products so generally to the city markets, and neglecting our home markets, has resulted greatly to our disadvantage, especially as they are at present managed, our honey being handled in the large markets by those who are not versed in all of the phases of bee-keeping. It has been impossible for them to build as firm a market as could be done by practical bee-keepers themselves.

One serious lack in our convention work has arisen from the failure to induce the wholesale and retail dealers in honey to be present at one session at least, of our meetings, at which time the subject of marketing our products should be discussed. Inducements should also be offered to secure a larger attendance of those who represent the consumers, which should be of mutual advantage. Dealers and producers should also be induced to present at these meetings samples of honey in the most desirable form for the best interest of the market.

I would recommend that all associations be urged to adopt these suggestions, and strive to correct this omission. There is greater need of earnest application in this direction than in any other branch of our calling, and too much thorough work cannot be bestowed upon it.

Bee-keepers must have in mind the fact, that to overcome these prejudices, and to build up a firm honey market, every effort must be made to have all honey placed upon the market in such packages as to prevent in every way possible, the honey from escaping and soiling other packages, or to in any way make it disagreeable to handle. Liquid honey should only be placed on the grocers' shelves in sealed packages.. Every precaution should be taken to have every comb in the sections perfectly capped, and firmly secured to the sides, so that it may be handled with the least chance of injury.. In producing our honey, we must have in mind all of the necessities of the *producer*, the *dealer*, and the *consumer*.

Stamford, ♀ Conn.

For the American Bee Journal.

Alfalfa as a Honey-Plant.

A. J. FOSS.

The following article from the San Francisco *Chronicle* may be of some interest to the readers of the AMERICAN BEE JOURNAL. San Diego county does not produce alfalfa honey, as alfalfa is not raised in sufficient quantities, but I have often seen it mentioned as furnishing honey in the counties north of this. The prospect for honey in this county is very poor indeed just at the present time, but our bees are strong, and with a few good showers we will have part of a crop; in one week more we will have drones flying. Here is the article referred to:

"The bee-keepers of Colorado recently held a State convention at Denver, in which many valuable points were brought out concerning this industry. Among other things, it seems that the most successful apiarists of Colorado are women, and the convention was largely composed of them. There was a good exhibit of honey and bee-keeping appliances, and much attention was attracted by a display of comb honey made entirely from alfalfa. It was snow white and of remarkably fine flavor. It is said that since the general introduction of alfalfa in Colorado, the keeping of bees has become a very profitable business, that plant furnishing an abundance of forage for the little insects. But it has not reached the development there that it has in California, for an apiary of 150 colonies is said to be the largest in the State, while here they frequently range from 200 to 500 colonies on a single ranch.

"It is evident from the experience of the last four years, that bee-keeping in California has received a serious set-back—that is, so far as relates to the production of extracted honey. Comb honey still sells at a price which pays a very fair profit; but it is useless to disguise the fact that at the price obtained for two or three years, the producer of extracted honey has had a balance on the wrong side of his ledger at the close of each season. Owing to the fact that much has been put upon the market in an unripened condition, it is very difficult to persuade people to adopt it as an every day, staple article of food.

"The purchaser of extracted honey at retail has no protection against the wiles of the adulterator. But with comb honey it is different. Not all the arts of the sophisticator have yet been equal to the task of producing an imitation of the wonderful work of the bee in the manufacture of comb honey. It would seem to be the part of wisdom, then, for the bee-keepers to turn their attention more to the production of comb honey, instead of extracted honey.

"In this connection, too, it may be noted that in order to get people to become habitual consumers of honey, it must be put up in small and attractive packages and sold at a price which puts it within the reach of all, so that it may be regarded as a staple rather than a luxury, as is now the case. The bee-keepers, too, must adopt some means for bringing the excellence of their product more directly to the attention of consumers. Notwithstanding the enormous product of the apiaries of this State, it is seldom that honey is seen exposed for sale in the grocery stores at retail, and when it is offered it is generally at a price about 200 per cent. or more higher than that received by the producer. Comb honey can be sold at a very moderate price, and still leave a profit to all who handle it, but some means must be taken to induce people to become larger consumers of it, if it is hoped to remedy the existing state of affairs.

"Another reason that makes the keeping of bees a precarious business, is the liability to an almost total failure of the crop nearly every other year, owing to the lack either of a sufficiency of wild bloom or a deficiency of the supply of nectar in the blossoms. The experience of the Colorado bee-keepers in this direction seems to offer a hint, and if it is true that alfalfa will produce so good a quality of comb honey, then it will be a comparatively easy matter for California apiarists to render themselves entirely independent of the caprices of the seasons, and give them a certainty of producing a good crop every year."

De Luz, Calif., March 26, 1887.

For the American Bee Journal.

Have Bees the Sense of Hearing?

D. BRIMMER.

In discussing this subject I have no object only to arrive as nearly as possible at the truth, for I have been a lover of the truth always, and while I am aware how difficult it is to come at it, so as to satisfy my own mind, much less those who are skeptical.

On page 201, Mr. Fox seems to take a different view from what I did in my article on page 121. He would have us believe that bees are wholly guided by the sense of sight, and labors to prove that the different sounds emitted are wholly from the vibration of their wings. Now, I would ask, can their wings vibrate when an ugly bee gets into a person's hair, or under his coat-collar, squealing and grunting like a young pig? I think it begins to resemble the cylinder of a thresher at a high rate of speed; and then, when bees get in a pinch, how they cry for quarters. Is that vibration?

With regard to a few bees leading a swarm to a tree previously selected, is a fact so well established that I am surprised to find a bee-keeper who doubts it. I have been aware of it from my youth up, and I find it well demonstrated in my experience. Would Mr. Fox have us believe that they go in a body to search for a tree in the forest? If they do they have good eye-sight; for more than 40 years ago I had 2 swarms come out and unite, and I hived them, but I saw they were restless, and the next day they came out and started toward a piece of woodland, up a hill, and as they were not going very fast I followed and saw them go into a large oak out of sight of my apiary, more than a mile from the place of starting. Is it to be supposed that they could all see the hole in that tree before starting? If not, then the leaders must have had flags to beckon them on, *if deaf*.

When we compare a swarm of bees to a drove of sheep or covey of prairie chicks, we stray from the mark, for the same law that governs the animal race does not come under that of the insect. Mr. Fox is willing to accord to sheep a leadership, but does not tell us how the leaders attract attention; it is by the bleating of the foremost.

As to stopping absconding swarms, I would say that I was as skeptical as any one once, and laughed at the idea of stopping bees with a noise to confuse them, and by letting them have their own way I have lost many good swarms that I might have saved. But give me a good bell, the size a milk-man carries, and if I can run fast enough to a little ahead of them, I can stop 9 out of every 10 swarms. I have stopped lots of them since trying the plan.

I would like to ask Mr. Fox if he never saw a young queen in the act of piping? I have more than once while holding the comb on which she was, and I know it was not caused by vibration. It is well known that old queens can be scented by the bees, but can they do it with a virgin queen? I think not. Now if there is no evidence that bees can hear, then I am no judge.

Hoosick, N. Y.

For the American Bee Journal.

Quietude of Bees in Winter.

9—JOHN C. GILLILAND, (25–23.)

Mr. G. W. Demaree denies, on page 151, that bees ever resort to exercise to raise or keep up the temperature in the hive in winter; and he thinks the theory of exercise to counteract falling temperature was invented to bolster up the "pollen theory." The theory may have been invented for that purpose, but the fact existed long before the "pollen theory" was evolved.

The statements here given I know from personal observation in this county only, never having examined bees in other places in winter. In January, 1885, the hive and cloth covers were blown off one of my colonies just after dark, and remained so until the next morning about 7 o'clock, leaving the bees exposed about 12 hours, with no covering except the clouds, and the mercury was at zero when I discovered their condition. About half an inch of snow had fallen in the early night and drifted in on them. They were roaring so that I heard them several feet away from the hive, and the bees on the outside of the cluster were continually going into it and others coming out. I both saw and heard these bees exercise to keep warm. In a few days the temperature rose up to 40° at noon, when they were quiet again, and there was a just perceptible hum, on placing the ear at the entrance. I know they were exposed all night, as it ceased to snow soon after dark, and the cover and cloth were both covered with snow.

I winter my bees on the summer stands, and know nothing about cellar wintering, by experience. I have wintered colonies packed with the enameled-cloth propolized down tight so there could be no upward ventilation, and others packed and with upward ventilation; also colonies unpacked in ⅞-inch single-walled hives, with and without upward ventilation. The temperature the most of the winters was as low as 20° below zero, and has been as low as 27½° below.

I visited the apiary at different hours in the daytime, and at night when the temperature was from 32° above zero to 24° below, and instead of the "oppressive stillness" the quietness (?) could be plainly heard, the hum or roar increasing as the mercury lowers until at 20° below zero, or lower; it can be distinctly heard 10 feet from a hive. This is kept up day and night with no cessation that I have been able to discover, until the temperature is rising, decreasing as it does so until it reaches about 40°, when there is just a perceptible hum by placing the ear at the entrance and listening closely. There is a very slight, if any, difference in the roar of the differently prepared colonies.

In the winter of 1880-81 this roar continued for over two months. In October, when there is a frosty morning with the temperature 10° below freezing, they will roar lively, and quiet down in an hour or two when the sun warms things up. With me, bees are most quiet at 40°. A higher temperature causes them to leave the cluster, and fly out, and as the temperature becomes lower they cluster more compactly, and the noise grows louder the lower it gets. Of course they do not leave the cluster to exercise, as that would defeat the object they are trying to accomplish.

This hum, when bees are clustered, is made by the true voice, as shown by Mr. Frank Cheshire, and certainly requires respiration. Therefore, to increase the hum they must increase respiration, and that is exercise. Possibly they are putting in the time, when too cold for anything else, exercising their vocal organs in getting ready for a grand chorus when spring comes. The colder the air, the more oxygen in a given space, and this added to the increased volume taken in by increased respiration, furnishes the fuel to raise the temperature. The bees do this because instinct so teaches them.

Mr. J. W. Bayard's article is very nearly correct, and certainly so for my locality, as to the colony never ceasing their hum until dead.

Mr. Demaree is less than one degree south of this place, and it seems strange that such little distance should so change the actions of bees. It may be a strange phenomenon and and an amazing philosophy that bees do this, but it is a fact here, at least. It is another fact showing that location changes nearly all rules about bees, and that each one must learn to adopt the management that suits his own location.

Bloomfield, ♀ Ind.

For the American Bee Journal.

Dairymen and Bee-Keepers.

JAS. E. TODD.

I prepared the following address which was read at the Farmers' and Dairymen's Association at Oneonta, N. Y., on Feb. 15, 1887, and would like to see it in the AMERICAN BEE JOURNAL. It is as follows:

It is well, perhaps, to first notice the fact that the interest of both bee-men and dairymen in many respects is identical. I will present a few observations which I have made at different times while keeping bees, not having been without them for over 30 years. We are literally living in "a land flowing with milk and honey," and inasmuch as the production of each of the best quality and in the largest quantity depends more or less upon the other, it is well that we study the underlying principles which tend most surely to advance them. The food question, then, would seem to be of the first importance.

It is pretty generally admitted that when our pastures and meadows are well covered with a heavy growth of clover, that they are in a first-rate condition regarding general fertility and milk-producing abilities. I have been experimenting for the last few years with Alsike clover, and I find it to be the very best of milk and honey producing food for cows and bees. The way bees help to increase its growth is by more perfectly fertilizing its bloom.

Alsike clover is a hybrid or cross between the small white clover and the pea-vine clover. It grows tall like the pea-vine, but unlike it, it grows a small, fine stalk, curing when cut for hay in one-half the time and sun required to dry the coarser clover. Its blossoms are the same size as the white clover, with white color except the outer edge which is pink, presenting a most beautiful appearance. Having a small blossom, its entire sweets are easily reached by the bees, and so attracts large numbers of them, thus causing its bloom to be most thoroughly fertilized by the dust of other bloom. Along in June, about the time that this occurs in this latitude, it may be observed that the clover head and entire stalk will begin to grow and swell rapidly, and will soon load with seed, and in good soil it will yield immense crops of hay or seed. The seed being very fine, it requires about two quarts, with one quart of the other seed, and eight or ten quarts of timothy and red-top seed mixed, per acre.

The Alsike and red-top delight in a damp, rich soil. If bees are so abundant as to thoroughly fertilize the clover bloom while in this blossom-opening stage, it would be largely for the interest of the dairyman to sow a light coating of plaster over his meadow and pastures some time in May, if his soil is of a clayey or retentive nature. But if the soil is of a sandy composition, or if bees are not abundant to fertilize the bloom, perhaps the plaster would do less good. It is also for the interest of both bee-keeper and dairyman to sow and raise large fields of buckwheat, and buy less meal feed for stock.

A good yield of grain, as well as straw, is almost certain where the honey-bees are sufficiently numerous to thoroughly fertilize the bloom, if the soil has been made sufficiently strong to produce the grain. We often hear men say that the sun has blasted their buckwheat, whereas the fact is that the soil or care was too weak to produce more than a weak growth of straw, and was exhausted at the very time that the grain began to form, or honey-bees were too few to fertilize the bloom. A buckwheat crop may be made to pay simply for the flour, and the coarser part of bran, which is an excellent milk-producing food, be obtained without cost. Buckwheat straw rightly cured and cared-for, with a little grain, and fed without grinding, is very good winter food for young stock. Buckwheat is also the best of egg-producing foods for fowls, and chicks will eat and do well on it while very young.

While it is a hard and laborious study to learn telegraphy or engineering, it is little less so to become an expert at bee-culture; and here also is to be found the secret of so many failures. There seems to be an impression among men that about all one wants is a few bees and the hiving of the swarms, and a little later on, the carrying in of tons of honey. The getting of a few bees is all right, but the watching, care and labor is much more than was expected. The knowing how to do, and the doing of the right thing at the right time, are the inexorable terms of success.

If the bee-keeper sees an attempt being made by a powerful colony to rob a weaker one, help to the weaker one must be immediate, or it is of no avail at all; for as soon as the weaker one is overcome its queen is killed, and the workers compelled to turn in and help carry their own honey with their victors, home to the hive of their assailants. Neither do they seem to grieve over the transfer of allegiance, for the very next day they will go to work as cheerfully carrying in honey from the field to their victor's hive as they had been doing in their own; but they do not yield to this without a terrible struggle. Often more than half the inhabitants of the hive will fiercely give up their lives and lie dead before their hives on the field of battle in defense of their honey, their queen and young, all of which they know will perish if they fail. The robbing difficulty can be greatly reduced, if not entirely overcome, by keeping all colonies strong, and sizing the entrance to that of the colony, and by exercising proper care while putting on or taking off honey, and otherwise opening the hives and handling the bees or honey. It is also almost equally important to do all things pertaining to bee-culture with nearly as much promptness as in the case of robbing.

There is also a good part of the year that bees need little or no care at all. The first thing to be done after getting a colony of bees, is to get them into a movable-frame hive, if they are not already in one, as soon as warm weather comes in the spring, and circumstances will permit. The choosing of the hive, too, which must be left to the person expecting to use it, very much like the choosing of a mowing-machine, is to be decided. I believe a low frame hive is preferable, and I use one, which I call the honey-chest, and winters bees safely on the summer stands, bringing forth strong colonies to take hold of the first spring bloom with vigor. The best facing for the hive is to the southwest, if there is any difference, but the main thing is to have the inside of the hive and bees right, and then all will be right.

Bee-keepers should not allow their honey to go upon the market until well assorted, keeping the white and dark separate, with prices according to quality. It is as difficult for bee-keepers as dairyman, or other producers, to agree on price or any general course of action. But they clearly should all determine to produce none for sale but the very best quality, at whatever cost of quantity. This the consumers themselves will not object to, and with almost all articles produced on the farm the same rules should be observed.

About the best course of late years for bee-keepers, is to take off the surplus honey before the dark, fall honey comes in, as it is so cheap, leaving the dark for the bees to winter on, if well sealed over, but if open it should be extracted, as it will sour in the hive and kill the bees before spring. This course will leave us only the white, best honey. Then we should see, as much as possible, that the honey is sent to market through and into hands not interested in getting prices down or damaging them.

Unadilla, ⊙ N. Y.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

Local Convention Directory.

1887. *Time and place of Meeting.*

Apr. 26.—Central Michigan, at Lansing, Mich.
J. Ashworth, Pres., Lansing, Mich.

Apr. 26.—DesMoines Co., at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 4, 5.—Texas State, at McKinney, Tex.
B. F. Carroll, Sec., Dresden, Tex.

May 5.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

May 10.—Cortland Union, at Cortland, N. Y.
D. F. Shattuck, Sec., Homer, N. Y.

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 26.—West Lake Shore Central, at Kiel, Wis.
Ferd Zastrow, Sec., Millhome, Wis.

Dec. —.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Swarming and Gathering Honey.—Peter Morelein, Brussels,⊶ Ills., on April 7, 1887, says:

My bees commenced swarming to-day. The honey comes in rapidly from willow and wild plum. The weather is very hot and dry at the present time, the mercury being at 86° in the shade. Bees are building up finely.

Bees Wintered Well.—Ferd. Zastrow, Millhome,⊶ Wis., on April 11, 1887, says:

Bees have wintered in the finest condition, both in the cellar and outdoors. Our bee-keepers' association has done remarkably well by spreading the knowledge of bee-keeping among its members, for the one year that it has existed; also the American Bee Journal has been an invaluable assistant to me; every bee-keeper ought to read it.

Deep Snow in Vermont.—A. P. Fletcher, Ludlow,⊶ Vt., on April 8, 1887, says:

The snow here on the level ground is still over 3 feet deep. An apiary of bees in Manum hives is only visible above the snow, and those hives stand 3 feet and 6 inches high. One can just see the tops of the hives. The banks made by shoveling the snow from the walks in some instances are now nearly 10 feet deep; they have been deeper.

Bees Wintered Poorly.—E. N. Fisher, Ludlow,⊶ Mass., on April 6, 1887, writes:

Bees have wintered poorly in this locality. I had 30 colonies last fall, and I now have but 15 left. Some were on the summer stands, but most of them were in the cellar, the temperature ranging from 35° to 40°. During a dry spell the last season the bees gathered a substance from the pond-lily leaves, dark colored and bitter, which gave them a diarrhea, and caused the death of most of my old colonies. We have had but two days this spring during which bees could fly, and there are quite a number of colonies in the neighborhood that are still in the cellar. I do not think we shall have many early swarms this season.

Long Winter Confinement.—C. F. Smith, Cheboygan,♂ Mich., on April 11, 1887, says:

My 15 colonies of bees have wintered under straw absorbents in a damp cellar at 38°, for 5 months and 10 days. Above the cellar 3 healthy children have played continually. The bees have been taken out, and are in apparently good condition.

Wintering Problem Solved.—A. D. Stocking, Cedar Branch,♂ Ind., on April 9, 1887, writes:

My 16 colonies of bees are all right, and are bringing in pollen from the willows. All colonies seem to be strong. They were wintered on the summer stands, the same as I have always wintered my bees. With me the problem of wintering bees is solved, and if I can have the three conditions, viz: the hive full of bees, plenty of good stores, and keep them dry, I would not give 10 cents per colony to have them insured to winter well.

Bees Enjoying Themselves.—John K. Rich, Cato,⊙ N. Y., on April 11, 1887, writes:

I had 18 colonies of bees last fall, 11 of which I put into the cellar the first week in November, with the temperature at 38° to 42°. I put them out on April 8, with a loss of 1 colony. Of the 7 colonies wintered on the summer stands there was a loss of 2 in chaff hives. I used 10 of the Betsinger honey-cases with wire-cloth separators; there was no propolis, and they were much more easily handled than wide frames. I shall use them exclusively the coming season. The temperature now is 75°, and the bees seem to enjoy it.

Singular Winter—Bees all Right.—W. Addenbrooke, North Prairie,⊶ Wis., on April 11, 1887, writes:

I put 130 colonies into the cellar on Nov. 24, 1886, and removed them to the summer stands on March 12, 1887. All are alive and in good condition. A few are now weak, and will be united soon, if the weather keeps as warm as it is now. On March 26, at 8 p.m., it commenced to snow, and snow fell until 4 p.m. on March 27. It drifted some, and was the heaviest snow-fall of the winter. On March 28 and 29 we had zero weather, and on April 4, we had a regular blizzard with snow all day; since then we have had good weather. Yesterday and to-day it was 75° in the shade. Bees gathered natural pollen for the first time to-day. I banked up all my colonies with snow, put good, warm quilts on top of the frames underneath the honey-boards, kept the ground bare of snow in front of the hives, and the colonies are in good condition, with plenty of brood and young bees hatching out. This winter has been rather singular for Wisconsin—so many severe changes in a few hours.

Where is it Found?—Dr. C. C. Miller, Marengo,♂ Ills., writes:

On page 218, in the address of Rev. W. F. Clarke, occurs the following statement: "It is proposed by some to pass a law securing to the first comer as a bee-keeper into a neighborhood, the exclusive ownership of the bee-forage within certain limits." Will Mr. Clarke kindly give the names of some who have made such a proposition, and also the place, if any, where it has been mentioned in any of the bee-papers?

Yet Snow-Bound.—J. B. Mason, Mechanic Falls,♀ Maine, on April 9, 1887, writes:

The season here is away behind. We are yet snow-bound, the snow to-day being 3 feet deep in the woods, with plenty of drifts 10 feet deep. Last season, five days later than this, the bees were bringing in pollen.

[Here in the West, the season is quite up to time, or, in fact, it is earlier than common. Bees around the suburbs of Chicago have been bringing in pollen for ten days.—Ed.]

Young Carniolans Flying.—Henry P. Faucett, Dilworthtown,⊶ Pa., on April 9, 1887, says:

Bees have wintered well so far. I lost 2 out of 50; they had a good flight to-day. In one of my Carniolan colonies drones and young bees were flying out. These drones were reared this spring. Bees gathered the first pollen on March 21, from swamp-cabbage.

Good Prospects for 1887.—G. L. Rankins, Weston,⊶ Ky., on April 11, 1887, writes:

Last fall I prepared 14 colonies of bees for winter on the summer stands; I now have 13 good, strong colonies and one weak one. They are working finely now, gathering honey from the peach, cherry and plum bloom. Apple trees are beginning to bloom, and everything looks as if we will have an early spring, and plenty of white clover. If so, we will have a fine honey crop. I am going to work all my bees for comb honey, as it sells best in this part of the country. I sold all I had last year at 12 and 15 cents per pound.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., **40** cts.; per hundred, **$2.50**. Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00**. On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)..............$1 00
" 100 colonies (220 pages)...... ...... 1 25
" 200 colonies (420 pages) 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result —a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00..	
and Gleanings in Bee-Culture.....	2 00..	1 75
Bee-Keepers' Magazine........	1 25..	1 25
Bee-Keepers' Guide.........	1 50..	1 40
The Apiculturist	2 00..	1 70
Canadian Bee Journal.........	2 00..	1 75
Rays of Light..................	1 50..	1 35
The 7 above-named papers	5 25..	4 50
and Cook's Manual..................	2 25..	2 00
Bees and Honey (Newman)...	2 00..	1 75
Binder for Am. Bee Journal..	1 60..	1 50
Dzierzon's Bee-Book (cloth)...	3 00..	2 00
Root's A B C of Bee-Culture..	2 25..	2 10
Farmer's Account Book......	4 00..	2 00
Guide and Hand-Book........	1 50..	1 30
Heddon's book, "Success,"..	1 50..	1 40
A Year Among the Bees.....	1 75..	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

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Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey ; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c. ; choice, 12½@13c.—Sales have been larger this month than at any time since November, and prices average a little lower for comb than the above.

BEESWAX.—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is improving.

BEESWAX.—23c.
Apr. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, 4@4¾ cts. Comb, white, 7@13c. Market firm.

BEESWAX.—Scarce at 19@22c.
Apr. 4. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : Old comb, extra white, 12½@14c.: dark, 8@11c. Extracted, amber and candied, 3¾@4c.; extra white, 4½@5c. Outlook is gloomy, as rain is needed badly.

BEESWAX.—Scarce at 22@23c.
Apr. 5. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 14@15c.; 2-pounds at 11@12c. Extracted, 5@7c. Demand for 1-lb. sections lively.

BEESWAX.—24 cts. per lb.
Mar. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Nice comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Mar. 29. C.F.MUTH & SON, Freeman & Central Av.

CLEVELAND.

HONEY.—Choice white, 1-lb. sections, sells at 12½@13c.; second quality white, 10@11c.: white 2-lbs., 10@11c. Buckwheat, 8@9c. Extracted, 5@6c.—Market dull.

BEESWAX.—25c.
Mar. 9. A. C. KENDEL, 115 Ontario Street.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 0@6½c.; in small packages, 6½@7c.; dark, in barrels and kegs, 4@5c.—Demand good.

BEESWAX.—25c.
Mar. 28. A. V. BISHOP, 142 W. Water St.

Convention Notices.

The next regular meeting of the Cortland Union Bee-Keepers' Association will be held in Union Hall at Cortland, N. Y., on May 10, 1887.
D. F. SHATTUCK, *Sec.*

☞ The next meeting of the West Lake Shore Central Bee-Keepers' Association will be held on May 26, 1887, in Koekring Hall, at Kiel, Wis.
FERD ZASTROW, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887. D. A. FULLER, *Sec.*

☞ The DesMoines County Bee-Keepers' Association will meet on April 26, 1887, at the Court House at Burlington, Iowa, at 10 a.m. All interested in bee-keeping are invited to attend. Articles sent for exhibition, to the Secretary, at Middletown, Iowa, will be exhibited and returned or sold, as directed. JOHN NAU, *Sec.*

☞ The ninth annual meeting of the Texas State Bee-Keepers' Association will be held at McKinney, Collin Co., Tex., on May 4 and 5, 1887. All bee-keepers will find a hearty welcome. No hotel bills to pay. An interesting programme is ready. Come one, come all. B. F. CARROLL. *Sec.*

☞ The Central Michigan Bee-Keepers' Association will hold the spring meeting in Pioneer Hall, Capitol Building, at Lansing, Mich., on April 26, 1887, at 10 a.m. A cordial invitation is extended to all bee-keepers. If any have troublesome questions, bring them with you, or send them to the President, at Lansing, Mich.
J. ASHWORTH, *Pres.*

The Chautauquan for May has the following table of contents :—Pedagogy: A Study in Popular Education, Third Paper, by Chancellor J. H. Vincent, LL.D.; Architecture as a Profession, by Mrs. Schuyler Van Rensselaer ; A Stellar Paint Brush, by Chas. Barnard ; Studies of Mountains, by Ernest Ingersoll ; The Sunday Readings ; Women in the Professions, by Julia Ward Howe ; Common Errors in English, by Edward E. Hale ; Practical Suggestions on English Composition, by Prof. T. Whiting Bancroft ; Animals of the Arctic Region, by Gen. A. W. Greely ; Homes Builded by Women, by Mary A. Livermore ; Rich Men in Politics, by S. N. Clark ; Sojourner Truth, by Harriet Carter ; The Fruits of California, by Byron D. Halsted, Sc.D.; The Potter's Art, by Felicia Hillel: and Slave-Holding Ants, by Henry McCook, D.D.

Eureka Recitations is a good collection, containing nearly one hundred pieces, compiled by Mrs. Anna Randall Diehl. All those interested in providing an entertainment, should have this collection. It contains 128 pages, and is published by J. S. OGILVIE & CO., 57 Rose Street, New York. Price 12 cents.

Advertisements.

PURE ITALIAN BEES, bred ten years from imported mothers, at $5 per colony. Hybrids less. A. L. GOULD, Ridgeville, Ills.
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6 **Horse-power Portable ENGINE** and Boiler for **$150.** Used but little.
D. G. WEBSTER,
16E2t BLAINE, Boone County, ILL.

WRITE

TO SMITH & GOODELL, Rock Falls, Ills., for low prices on Apiarian Supplies.
16A4t

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.,

HAS the permission of the writer to publish the following :

" Forest City, Iowa, March 28, 1887.

W. Z. Hutchinson, Rogersville, Mich.—Dear Sir, and Friend : I am in receipt of your pamphlet—'The Production of Comb Honey.' It is the neatest little thing I have seen lately. As a work of art it is as near perfection as printers in 'country offices' usually attain to. I venture the opinion that that cover was the work of a bee-keeper, or at least originated in his (your) creative brain. Nobody but a bee-keeper would have thought of such a unique and appropriate covering. The subject is treated in a very readable and creditable manner. I have been practicing substantially the same method, except the non-use of foundation. I shall try that this season.

Respectfully Yours, EUGENE SECOR."

☞ Reader, if you wish to enjoy the same pleasure as did Mr. Secor, send 25 cts., and a copy of the book will be sent postpaid.
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BOTTOM REACHED.

ITALIAN BEES in Heddon Hive $4.00
QUEENS, Untested, 80 cts.; Tested... 1.60
NUCLEI without Queens, per Frame.. 70
To Nucleus add price of Queen wanted.

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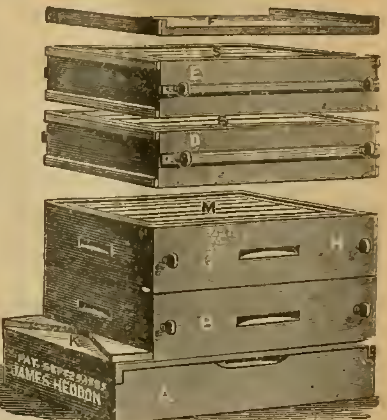
C. WEEKS,
15A4t CLIFTON, TENN.

DON'T BUY QUEENS,
HIVES, SECTIONS or SUPPLIES

before you send for my Catalogue and Price-List. Address,
J. P. H. BROWN,
8E6t AUGUSTA, GEORGIA.

THE NEW HIVE.



I have many more testimonials like the following, from Leading Bee-Keepers of this country. See 1887 Catalogue, to know what Prof. Cook, W. Z. Hutchinson, F. P. Stiles, T. L. VonDorn, F. Boomhower, and Doctors Tinker, Mason, Miller and others think, after many of them have thoroughly tested the New Hive :

ST. CHARLES, Ills., Feb. 7, 1887.

JAMES HEDDON:—Dear Sir : Your letter dated Feb. 3rd. is received. In reply I can say that I have watched closely, and with interest, the discussions pro and con in our bee-periodicals in regard to your New Hive. Although I have not as yet been prepared, as you are aware, to give your New Hive a personal test, yet I can say, in harmony with Dr. Miller's declaration, that your invention is one that requires no practical experience, on the part of any one familiar with the art, to recognize it at once as a hive of very superior merits. Having, during the past year, given your New Hive and its management very careful thought and study, I am constrained to say that I believe it to be as far in advance of all other hives as the well-known Langstroth is in advance of the old box or bee-gum. I say I believe this, and in keeping with that belief, it is my present purpose to adopt your New Hive just as soon as I can shape my plans to that end. In short, I feel as though I CANNOT AFFORD to use any other hive. Having used the Langstroth, with its best modifications, since the spring of 1858, it is with a feeling of considerable regret that this resolution will compel me to bid this old friend a final adieu.

It is apparent to me that the novelty of your New Hive is as wide a departure as its utility is superior to all others. Notwithstanding there have been hives with features resembling parts of your New Hive, still I have never seen a combination, nor am I aware of any that possesses its functions. And right here is just where the invention and patentability exist, without which you certainly would never have received the many strong and well merited testimonials which I find in your Catalogue for 1887. Having for the past 25 years given the laws relating to patents more or less attention, I have no hesitation in repeating the word of Prof. Cook and G. M. Alves, that the "rubbish" which is already "lugged forward," in futile attempts to anticipate your claims, does not "deserve a critical man's attention."

As you seem to desire the foregoing for publication, I have taken especial pains to say nothing that I might possibly regret in the future.

Fraternally yours, M. M. BALDRIDGE.

FOR WINTER.

HARTFORD, N. Y., April 9, 1887.

We have had sleighing 134 days, and we are on runners yet. This is the first general flight my bees have had, and I had to dig the hives out of deep drifts in order that the bees might have fair sailing. Eighty-five wintered in my old chaff hives came through with a loss of half, and many more weak. Nine in your hives packed in 6 inches of chaff, and setting 2 inches from bottom-board, not having a general flight in over 130 days, are all in good order. Four wintered on a single case are in best shape, with sealed brood. Stores the same in all the hives. Bees in the cellar are dying.
J. H. MARTIN.

No Circulars sent out, unless asked for. Send address (*plainly written*) to

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DOWAGIAC, MICH.

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Management of an Apiary for Pleasure and Profit; by

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It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

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☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

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Send for free price list, and samples of Sections and Foundation.

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SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents. Price-List of Supplies free.

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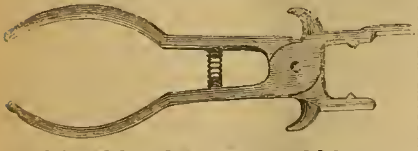
Jones' Frame Pliers.



FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, **40** cts., by mail.

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Shuck's Invertible Hives & Cases. I make **L.** hives of all styles. Greatly reduced prices.–806 Walnut st.
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HAND-BOOK OF HEALTH,

HINTS AND READY RECIPES,

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What to Eat,
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Superfluous Hair,
Restoring the Drowned,
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Parasites of the Skin,
Bathing—Best way,
Lungs & Lung Diseases,
How to Avoid them,
Clothing—what to Wear,
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Black Eyes, Boils, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Diarrhœa, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts Whooping Cough, Worms in Children.

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Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
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100 **COLONIES of Italian BEES** for Sale. DANIEL WHITMER,
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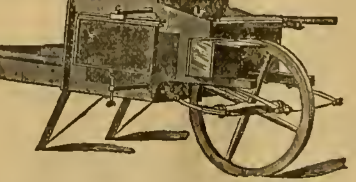

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Tool Box and Recording Desk Combined.

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Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

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We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

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BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives; for sale at $8.00 per Colony. **Z. A. CLARK,**
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BEES! 300 COLONIES ITALIANS

READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free. OLIVER FOSTER,
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all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

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THE HORSE,

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A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. April 27, 1887. No. 17.

A Word of good counsel we ne'er should forget;
And to keep out of danger is to keep out debt!
If peace and contentment and joy you would know,
Don't live upon credit, but pay as you go!

* * *

"Practical Turkey Raising" is the title of a new pamphlet just received. It is written by Fanny Field, the most experienced breeder of turkeys in America, and published by R. B. Mitchell, of Chicago, Ills. It is written expressly for those who are interested in profitable breeding of turkeys for the market. Price 25 cents. It can be obtained at this office.

* * *

Mrs. M. Crumrine, of Bryan, O., one of Mrs. Lizzie Cotton's pupils, reports the reception of a pencil drawing of her hive (costing $3) and states that she has made some and found them successful in wintering bees on the summer stands. She also thinks that Mrs. Cotton's book is a plain and practical work. In justice we give the above, as we have published several complaints. Three dollars is still very high for a "pencil drawing of a hive."

* * *

Making Honey Vinegar.—Mr. C. F. Muth gives these instructions in *Gleanings*:

> When making vinegar, one must know that water will turn into vinegar providing it contains the necessary quantity of sugar stuff, and is exposed to fresh air and a warm temperature. The warmer the temperature and the better the circulation of air, the sooner vinegar forms. A barrel is laid down, and an inch hole is bored in the upper end of each head, near the upper stave. This admits of a good air-passage over the body of the honey water. Tins with fine perforations nailed over these holes, with the rough side outward, exclude flies and skippers. Take about one pound of honey to one gallon of water, thoroughly mixed up, and nail a perforated tin on the bung-hole. We take 35 to 40 pounds of honey for a barrel containing 40 to 45 gallons of water. The warmest place in the yard is the best place for the barrel. If the sun shines on the barrel all day, it requires from the beginning of April to the end of October to make vinegar satisfactory for all purposes. If not sour enough by fall, it will be all right by Christmas or spring, if placed in the cellar or a warm room.

Kissing Bees.—In a woman's convention lately held, Mrs. Thomas, of Tacony, Pa., when speaking of the subject of "bee-keeping for women," said she had kept bees "for 25 years, and her earliest memory was of bees and tubs of honey," and then stated that she "had learned all the practical operations of bee-management before she ever saw a man lift a comb or transfer a colony." It will be seen that she was a wonderful woman, but her bees were still more wonderful!! She added: "My bees know me, and often *kiss my hand*." We know of hundreds who would prefer not to have any such familiarity exhibited by bees—Bro. Clarke, for instance! When they kiss him, his lips swell up and he is apparently filled with poison!

But Mrs. Thomas has a splendid honey market, as well as wonderful bees. She says that when she began, she "received 50 cents a pound for comb honey in eight and ten pound boxes, and never had to go out after buyers." Two years ago she had 3,000 pounds of surplus from 25 colonies, and sold $750 worth of honey! Prodigious! Honey 50 cents a pound! Profits, $30 per colony! Wonderful bees—market—woman—and all!

Now see how unselfish she is. She wants every other woman to become an apiarist too, and puts it thus: "A woman who can obtain money to buy her bees and fixtures, may count on a return of $200 to $300 the second year, beside paying for the stock!"

This is clinched by the following: "Miss Angie Creed borrowed money and bought her stock, and two years after exhibited at the State Fair beautiful honey which sold at 40 to 50 cents a pound. It paid off her outlay and left a balance."

This *rosy* account is being extensively copied into the papers, and will, no doubt, induce many to embark in the business only to become disgusted when they find that the price of honey is less than one-fourth of that quoted above; and much of the *rosy* speech at the convention proves to be but a "delusion and a snare!"

* * *

Feeding Bees in May.—Mr. Wm. B. Treadwell, in the *American Agriculturist* for May gives these instructions for beginners:

> Large quantities of brood are reared in May, and after the red buds of the soft maple have put forth their heads there will be plenty of natural pollen for the bees to gather. If there are no maples or willows near, take some unbolted rye flour, mix it with sawdust or cut straw, and set in a sunny corner, sheltered from the wind, when, if the bees require it, they will carry it freely. In localities where there is honey in the blossoms at this season, the bees will gather it very rapidly, and the more honey they get the faster the colony increases. Where there are not enough honey-producing flowers, by all means feed, at the entrance, say about a gill of hot feed every night. By feeding thus, your colonies will increase very rapidly, and when the honey commences to flow, they will be strong to gather it. Again, should there be honey in the blossoms, and cold and rainy weather set in, feed as above, for should the weather continue cold, the bees would naturally commence to destroy the work already accomplished, by tearing out and destroying the hatching brood. If bees are kept for increase alone, feed them every night, and continue to do so until honey can be gathered in abundance.

* * *

Bee-Catalogue of Thos. L. Thornton, Dividing Ridge, Ky., is received.

Building Air-Castles.—How often this is done, and how disappointed is the "builder" when light, truth and facts cause the air-castles to vanish. Mr. J. W. Sanders, of Le Grand, Iowa, writes us as follows concerning what he is pleased to call a "silver-plated air-castle:"

> During the social talk of our last bee-meeting, there was a person present from some out-of-the-way rural district. He wanted to know how we fixed sugar to feed bees in order for them to make it into honey. He said there was being lots of it fed now for that purpose, and money could be made at it.
>
> We told him he was mistaken, that sugar was not fed for that purpose, and could not be, with profit, even if desired. He thought it could, and said that parties in the East were doing it.
>
> In order to prove it to us, he took an old circular from his pocket, handed it to me and said to me: "Read that," referring to a particular item in the circular.
>
> The part referred to gave the great advantages of a bee-feeder, and how easy it was to feed bees with it. I turned the paper over, and found that it was James Heddon's circular, and the item referred to his bee-feeder.
>
> A general smile came over those present. We told him what was meant by a bee-feeder, and what they were used for. I advised him to take the AMERICAN BEE JOURNAL, and invited him to attend our bee-meetings.
>
> A disappointed look came over him, and he failed to make his appearance at our meeting in the afternoon. We think he returned home with his silver-plated "air-castle" all vanished!

Many prefer to do a fraudulent business rather than one which is honorable and honest. This man had no idea of "keeping bees"—but he wanted to "make honey!" He snapped at the idea of using a feeder (which was intended to keep bees from starving), when he supposed it could be used to feed the sugar, and have the bees make honey!! But when he found that the bees must *gather* the honey from the flowers, ready-made, distilled drop by drop in Nature's laboratory—pure, healthy, and nourishing—then he wanted none of it! He must have a fraudulent article or nothing!

* * *

Bumble-Bees and Clover Blossoms.—Prof. W. J. Beal, of the Michigan Agricultural College, writes thus on this subject in the *Farmer's Advocate*:

> An inquiring friend would know "why the first crop of clover has no seed; whether it is possible to distinguish the difference, if any, between the blossoms of the plant bearing the seed and that which contains the fertilizing quality; and has the bumble-bee anything to do with it." So far as examined—the blossoms of the first crop of red clover have good pistils throughout, and good stamens, with plenty of what we should call good pollen. In other words, we cannot see why they are not just as capable of fertilization as those which come later. Experiments, repeated on the second crop for six years, give varying results, but in all cases they show that bumble-bees in Central Michigan increased the crop from 100 to 400 per cent. Other insects may also help in this matter. In Kansas they tell me bumble-bees are scarce, but clover seeds freely. Honey-bees at the Michigan Agricultural College, without any question, increase the yield of seeds of white clover enormously, in one case as 236 exceeds 5. I am satisfied that in some locations at least bumble-bees should be encouraged for the good they do to red clover. Now the problem is this: How can the entomologists rear and keep over winter large numbers of fertile queens? It seems to me not improbable that the time may come when bumble-bee queens will be reared, bought and sold for their benefit to the crop of clover seed.

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Removing or Renewing Brood-Combs.

Query 409.—1. How often should the brood-combs of a hive be removed or renewed? 2. When is the best time of the year to remove them so as to get good, full sheets of worker-comb? 3. What becomes of the wax in those old brood-combs? Melting it gives very little wax to me.—A. J. F., Calif.

I have had no occasion for renewing my old combs in all of my 18 years' experience with bees.—G. M. DOOLITTLE.

I have not yet been confronted with this problem. I do not know what becomes of the wax, but I do know that old combs have yielded but little wax for me.—W. Z. HUTCHINSON.

1. Not oftener than 15 or 20 years, if it is good straight worker comb. 2. In the spring, using full sheets of foundation in their place. 3. Perhaps the wax in old combs decays.—G. L. TINKER.

1. Not until you experience a difficulty with them that their removal will remedy. 2. During the brood-rearing season, when there is not much honey being gathered. 3. There is very little in them.—C. W. DAYTON.

Once every 15 years is often enough to renew the combs. They might as well remain even longer, if not too dirty. There is just as much wax in those combs as ever there was, but it is a little more difficult to get it out.—DADANT & SON.

1. I have seen prosperous colonies on combs 20 years old. 2. After swarming is all past. If before swarming, drone comb will be built in large quantities. 3. The wax seems to be held back among so many cocoons.—JAMES HEDDON.

I cannot say, as I have kept bees only about 20 years. Good frames of straight worker-comb may be kept indefinitely. If to be changed, it may be done at any time, though only when colonies want bees, and not room to store, if we desire worker-comb, as we always do unless we use worker foundation. 3. The wax is all there; the comb is very thin.—A. J. COOK.

1. I remove old combs gradually as they become inferior. I never remove a whole set at once, because they do not all become inferior at once. I gradually work out the worst combs. I have not kept bees in movable frames long enough to know how long good combs will last; I have combs over 15 years old that do good service yet. 2. The best time to have combs built is during the best honey flow. 3. I think the wax is there—the trouble is in separating the wax from so much refuse as collects about the wax in old combs. With the improved sun wax separator, I get a good turnout of wax from old combs.—G. W. DEMAREE.

1. I do not know. I have some now that have been in use for over 16 years, and they are as good as ever. They should not be renewed as long as they are good. 2. Early in the season as possible. 3. The wax becomes amalgamated with the "cocoons" lining the cells, that are left after the bees emerge, and so closely that but little can be obtained by melting down very old combs. Old combs, therefore, are far more valuable as combs, than the wax that can be extracted from them.—J. E. POND.

1. I do not know. Some of mine must be 20 or 25 years old, and I would not think of renewing them. 2. I get worker-comb at any time by using full sheets of foundation. 3. Is it not possible that the wax is still all there, but soaked into the cocoons, as it were, so as not to be easily separated?—C. C. MILLER.

1. If the combs are all right what do you want to remove them for? 2. In the fall, when looking over all the colonies for winter, I take out all defective frames and replace them with perfect ones. 3. I do not know.—H. D. CUTTING.

If they are not damaged, and contain sufficient worker-cells, they should be good for a quarter of a century or longer. Old brood-combs contain so many "cocoons," accumulating from the myriads of bees born in them, that they are unprofitable to melt for the wax.—THE EDITOR.

Getting New Brood-Combs Built.

Query 410.—In moving my bees last spring on a farm wagon, over rough roads, the combs were more or less broken and damaged, so that the frames are now stuck together. I wish to get new combs built by furnishing wired foundation. 1. Shall I invert the old hives and put the new ones containing the wired foundation on top of them? Or put the old hive on top of the new one, and force the bees to pass in and out through the lower story? 2. When should this be done, and how many frames of wired foundation should I put in at first? 3. How long will it take the bees to transfer their stores?—Belleview, Ky.

I should put into practice what has been styled "modern transferring," as advised by Mr. Heddon.—W. Z. HUTCHINSON.

1. Put the new hives on the top. 2. At the beginning of the honey harvest. Gauge the number of frames by the size of the colony.—C. W. DAYTON.

I should say that about your best plan would be to wait until the swarming season arrives, and then transfer the bees to "those wired frames of foundation" by the Heddon plan.—G. M. DOOLITTLE.

1. Wait until fruit bloom, and then transfer by the Heddon method, and feed the stores to the bees in the top of the hive. The brood can be cared for in the old hive, *al a* Heddon, and can be transferred temporarily into frames, and put in the top of the hive until the bees emerge from the cells. 3. It will depend upon the weather. Probably but a few days. The trouble will be with the brood, which will require 21 days from the last egg before all leave their cells.—J. E. POND.

Put the new hive on top of the old one. It will take more or less time for the bees to move up, depending upon the season. A better way would be to transfer the worker-combs during apple bloom, and thus save all that were worth saving.—DADANT & SON.

1. Try both ways. I should place the new frames on top. 2. As soon as the bees are strong enough to build the combs; give them all you wish them to have at once—a super full. 3. Very much depends, as regards all these questions.—JAMES HEDDON.

I should give the bees wired foundation in new hives as soon as strong at swarming time; then let brood develop, and when the three weeks had passed, melt up the old comb, after extracting the honey. In changing to reversible frames I have done just this, and very successfully. If desired, we can use only starters in brood-frames, and add sections at once. This gives the maximum amount of honey.—A. J. COOK.

When the bees get to be strong in the old hives, I should place the new hives on top with full sets of frames. 3. After the bees have drawn out the combs in the upper story, the queen could be smoked into it, and a queen-excluding honey-board put between the hives. After 21 days the lower hive could be extracted, and the combs melted into wax.—G. L. TINKER.

1. I doubt if the bees will occupy the frames of foundation in either case until their old brood-nest is filled, and they are crowded for more room. Without seeing them I am not sure what I would do, but I think I would straighten up all the combs I could in the old frames, or transfer them into new, and supply the deficiency with frames of foundation added as the bees could occupy them.—C. C. MILLER.

I should want to transfer by any well defined method. You will get no satisfaction unless you do. 2. Just as fruit blossoms begin to open, put in all the frames the bees will cover. 3. If left in the old hive they will not transfer their stores at all, in the way you propose.—H. D. CUTTING.

You can do as you say, and the best time to adjust the frames of foundation is right at the commencement of the early honey harvest. But your plan would not pay me. I would cut loose and straighten up all the best of the old combs, and supply with foundation what is lacking. I cannot afford to melt up good old combs because they are out of shape, as long as I can save mony and time by putting them in order. 1. Why invert the old hive? 2. Why not put on an upper story with a full set of frames, with foundation on the brood-chambers just as it is, at the beginning of the honey season ? 3. Perhaps never. If I wanted to throw away the old combs, I would drive the bees about May 1 into new hives filled with foundation, like we used to drive them into empty hives 30 years ago.—G. W. DEMAREE.

If you must use "wired frames," you should put the new hive on the old one, but the bees will be slow to go up there until they have filled up below. Would it not save time and trouble to transfer them during fruit bloom, and save all the combs that are worth saving ?—THE EDITOR.

Spring Management of Bees.

Query 411.—My hives last fall, when put into winter quarters, were full of honey, and I left all the frames in them. The combs at the sides of the hives now (March 12) are still full of honey. Would it be better to leave them in, or take out one or two on each side, and put in division-boards, or put in frames of foundation in their place ?—Kankakee, Ills.

Leave the combs of honey as they are by all means.—G. L. TINKER.

Let them alone where they are.—JAMES HEDDON.

I should leave them in, in this locality.—G. M. DOOLITTLE.

Take out and crowd by use of the division-board. This is the sovereign remedy against spring dwindling.—A. J. COOK.

For cold climates, take out extra combs and make the hive snug and warm.—C. W. DAYTON.

Most likely your bees will need that honey before the clover crop. But if they really have too much, it had better be taken out.—DADANT & SON.

I do not know how many frames are in your hives, but I think it a fine thing to have full combs of honey in a hive on March 12.—C. C. MILLER.

Much depends. If there are center frames without brood, remove them, and replace with the full ones, putting "dummies" on the sides of the hives. Contract to as few frames as the bees can cover, and feed if necessary. Do not remove brood in any case.—J. E. POND.

A solid frame of honey is the best division-board ever made. For all practical purposes, if the colonies are strong in bees, leave them as they are.—H. D. CUTTING.

If there is more honey in the hive than the bees will use, it is just so much dead capital; if you can make any use of it, take it out and put in division-boards or "dummies." Do not put in frames of foundation, as they will be filled with honey in very poor shape for market, unless extracted; and then it is more convenient to have the surplus stored in an upper story. Why use hives so large? —W. Z. HUTCHINSON.

I would leave the honey where it is. If the queen needs the room below to enlarge her brood-nest, the workers will carry the honey above. This is one of my objections to sugar feeding, and a very serious one. When my brood-chambers are full of honey except the room occupied by the queen for her brood, I am sure of the surplus being conveyed to the surplus department. In other words, a hive full of brood and sealed honey is "contracted" to as good effect as if division-boards occupied the place of the sealed honey, and with this advantage the bees do not have to be fed at the close of the season at a loss of bees and stores.—G. W. DEMAREE.

You risk nothing by leaving the frames of honey in the hives until honey is being gathered; then if there is too much for immediate use, remove it.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○+ east; +○ west; and this ♂ northeast; ↖○ northwest: ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

The Medicinal Properties of Honey.

G. P. HACHENBERG, M. D.

Since the publication of my article on the "Medical Properties of Honey," in the AMERICAN BEE JOURNAL for April 26, 1886, I have received several letters asking for further information. The subject appears to have received special attention, by the profession in particular.

D. C. Spencer, M. D., of Augusta, Wis., makes this request: "Will you please to give, in the AMERICAN BEE JOURNAL, a list of authorities for the positions taken in your article, and also state how much and what parts were from original observations, and what were your data on which these were based ?"

I reply with pleasure, and hope what I may be able to say in answer to the questions on the subject will prove satisfactory.

The general recognition of honey in the pharmacopœias shows its high officinal position. The United States Dispensatory necessarily had to receive it as an officinal remedy, but unfortunately blotched it with a great error. It says: "Honey possesses the same medical properties with sugar, but is more disposed to run off by the bowels, and to occasion griping pain." What an unhappy contradiction by so high an authority! The deleterious effects referred to show at once that honey is something more than sugar. It may safely be assumed that all remedies that betray an untoward effect on the system, may be turned to a medicinal advantage. This explains why some of the most powerful "poisons" may serve us as the most efficient means to subdue disease. A tisane is no medicine—it may serve as a nutritive; but it is soon subverted by physiological operations; where, on the other hand, it is the medicine that controls these operations.

There is another reason for regarding honey as something more than sugar. If the two were isomorphous, although identity of composition by no means implies identity of character, we would be less inclined to assail our august authority, but honey has one more equivalent of oxygen than has sugar, as established by Praut, Gay Lussac and Thenard; therefore the two are not alike to produce the same physiological effect. According to Draper, we have specific chemical tests to distinguish one from the other. Leibig's analysis of honey and sugar stands as follows :

	Carbon.	Hydrogen.	Oxygen.
Honey......	36.36	7.09	56.55
Sugar.......	42.30	6.38	51.31

The chemists named, previously render the oxygen in sugar only about 50.00, giving still a greater excess of it to honey. I have no doubt, that on the law of chemical affinity, if the analysis could with strict accuracy be made, it would amount to one whole equivalent 8.013.

Honey has two specific effects in its route through the system in which it differs from other saccharine substances. The mellic acid in the honey (it is evidently this acid which is referred to in the American Cyclopædia on the subject of honey), is an irritant, often distinctly felt in the throat after eating it. It is not always of uniform proportion in the honey. It has its beneficial function to perform, but when in excess, it poisons the honey, and like the Trebizond honey, may be dangerous to use. I know that poisonous honey is supposed to be derived from poisonous flowers, but of this I have my doubts. When honey is taken in the stomach, the mellic acid unites with the gastric acids and will excite and favor digestion. Especially advantageous, too, are its antiseptic properties, which, being more positive than sugar, tend little to gastric fermentation.

It is well enough to observe in cases of dyspepsia and idiosyncrasy, where the mellic acid does not receive the co-operation of the gastric acids to favor digestion, it may develop a strong, untoward effect, even to cause sickness. But such cases are not common, and upon the whole, honey is a wholesome diet, a good, mild medicine, and even a potent prophylactic of diseases. But the most important physiological action of honey in passing through the system, is its election for the liver, on which organ it expends the whole of its glucose material. Starch and sugar follow the same route, but only by means of a highly complicated operation. In the glycogenic process of the liver on honey, no special reconstruction is needed as is the case with starch and sugar. The latter have first to be converted into glucose, much like that of honey, before its assimulation in the liver. It is self-evident that this economy of labor on the part of the liver on honey, makes it an excellent hepatic with laxative and diuretic effects. There is perhaps no other hepatic like honey, all others stimulate the liver into action at a certain vital expense; honey facilitates its operation on a reverse principle, that is, by lessening its labor, and still perform the normal amount of work.

It may here be proper to state that the mellic acid is hardly ever conveyed to the liver, but decomposed by the alkalinity of the chyle. Should it be taken to the liver, it would serve as an irritant to that organ, causing violent bilious vomiting and purging. The history of some cases that may be confounded with idiosyncrasy, I think will establish this as a fact. Honey leaves its highest blessing not only on the liver, but through its easy but thorough assimilation in that organ, it necessarily holds a healthy sympathy with the operations of the kidneys. By some fault of the liver, it may turn starch and sugar into glucose, but fail in the elimination, throwing the burden on the kidneys, often a most dire disaster, unfortunately too common, which would not take place by the use of honey.

In my article on the "Medical Properties of Honey," is given a full list of the same, both as a local and constitutional remedy. Perhaps the list has appalled Dr. Spencer. Of course they are not all of an immediate character, some are primary, some secondary and reflex, and of such nature as only Dr. S. and other medical scientists can determine. In determining the medical properties of a remedy, much depends upon circumstances, and the way a skillful physician prescribes it. For example, take ipecac. What is it? An *emetic*. Yet it cures vomiting, and thereby becomes an *anti-emetic*. In a disease of the lungs, you put the patient in bed, and it is administered as a diaphoretic and expectorant. Give it to one, and turn him out-doors, and it is likely to prove diuretic and hepatic. In fever, as a febrifuge; in cholera and convulsions, as an antispasmodic; in labor, as a parturient; in dyspepsia, as a tonic; in constipation, as an aperient; in diarrhea, as a sedative; in hemorrhages,as a constitutional hæmatostatic; in intermittent fever, as an antiperiodic; in hysteria, as a nervine; and in many forms of chronic diseases as an alterative, etc. It is often the case that the physician with suitable cases will mould his remedy to his purpose, as a potter does his clay; not only this, but doctors may all prescribe the same remedy for the same purpose, and they be like so many musicians playing the same instrument and the same tune, and yet no two play it alike.

It will be perceived now in what way I passed judgment on the medical properties of honey. The nature of a case often is as important a factor to determine the properties of a remedy, as the remedy itself.

Let us briefly refer to some of the authorities on our subject. Prof. John J. Reese, in his "American Medical Formulary," gives honey as a "demulcent and laxative, and used as a vehicle for other medicines." In Dungleson's Dictionary: "Honey is employed as aliment, condiment, and medicine. It is demulcent and aperient, and is prescribed as an adjunct to gargles in *cynanche tonsillaris*, etc. It is used as a detergent to foul ulcers." The oxymel of the London and Dublin Pharmacopœias (made of honey and vinegar) is recommended as a "pleasant addition to gargle, and is sometimes used as a vehicle of expectorant medicines, and to impart flavor to drinks in febrile complaints." I know of a Texas physician that uses the oxymel, and nothing else, in the treatment of croup and other throat diseases, and, I am told, with wonderful success!

Where honey is used as an adjunct, it often has very fine and pleasant effects, such as the "Honey of Roses," "Honey of Borax," "Oxymel of Squill," etc., and other formulæ of the kind found in the Pharmacopœias of the medical profession. It is interesting and suggestive to see the different preparations of honey that may now be found in the drug-market. In connection with the few already given, there is the Acetomel, Aloe, Anaphromel, Aquamel (Honey-Water), Aquamelis, Ægyptomel, Ceromel, Depurated Honey Ph. Ger., Honey of Elder Flowers, Glycerated Honey, Hydromel, Rhodomel, Honey of Rhatany, Honey of Borax and Roses, Honey of Violets, etc. *Vide:* Frederick Stearns & Co's "Pharmaceutical Catalogue."

The place honey frequently takes in authenticated prescriptions demands our attention. I have had special facilities to examine this part of the subject. Having been for many years engaged on a "Consultation Prescription Book" which contains a full list of all the remedies with their posology and properties, etc., so far as I could, by large resources at my command, procure them; and many thousand authenticated prescriptions nosologically classified to cover not only each disease, but every stage and complication it may have. In this voluminous collection of material, I have carefully observed as author, physician and apiarist, in what manner honey was prescribed by the master minds of the medical profession. I may have perhaps a hundred formulæ in my book, where honey was prescribed,in many cases as in the oxymel that could not well be replaced with any other saccharine material. It is with some pique, I have to say that nearly all of these honey prescriptions, like the oxymel, orginated in Europe. It is evident that the honey in these prescriptions take the place both of a menstruum and a medicine—a chemical agent no other solvent has, except those of a violent nature. I have noticed in these formulæ, that honey with Kusso,as an electuary for worms; with pepsin,as a tonic in preference to saccharated pepsin; with chlorate of potash, for gargles; with mindererus, as a diaphoretic and febrifuge; with opium and assafetida, as an antispasmodic sedative and nervine; with sulphur and senna,as a laxative, hepatic and carthartic. In the analgesic prescriptions of Prof. Fenwink, of England, in his "Outlines of Practice," there are several that contain honey in some form.

Now when, where, and why is honey used as an adjunct and solvent by choice? There are two reasons, one is to favor the assimilation of the base in the prescription, and the other is to associate it with remedies that in some way or another have, more or less, some analogous principles with it, either physiologically or chemically. The object is to maintain a compatibility of the different remedies in a prescription. Take any of the above examples where honey is given in connection with other remedies, we find that each is modified in its physiological force. It may give a keener edge to honey, and blunt the acridity of its associates. Here is a principle that involves the construction of all scientific prescriptions. For many reasons there is often a necessity of uniting remedies, as disease is a complex affair; but at the same time we must see the folly of polypharmacy, or what in common parlance is called "shot-gun medication."

In domestic practice, honey has been used for ages as an independent remedy for the treatment of some diseases. Physicians in the present age with their armamentarium of over four thousand remedies, make better, quicker, and surer work by associating it with other remedies.

But what is its actual physiological force as a curative agent? In referring to my "Consultation Book," where with the labor of years I made a proximate estimate of the "force" of each remedy, I find that I have assigned to honey 14, sugar 6, and starch 1. The scale runs from 1 to 100. The higher the figure the more powerful the medicine. The force of Prussic acid is represented at 97. Honey here stands rather high in the scale as a mild remedy, but mainly on account of its local effects. Constitutionally administered, on Leibig's theory of the disposition of sugar in the system, I would make it 10, leaving it still higher than sugar, on account of the behavior of its mellic acid in the stomach. But without the acid in its assimulation, which is much more readily effected than sugar, it would fall below sugar and stand at 4! The importance of this arrangement is clear, as it greatly lessens the chances of making a mistake in prescribing powerful remedies. A glance is sufficient to make an intelligent estimate of the power of any drug, and with full security, which the reading of many pages on the subject may not always do, to say nothing of the loss of time.

The biblical history of honey leads us to think that it is not held in the same general estimate in the present age that is was in the earlier ages of the world. But from the present condition of things, we have every indication that it is about to regain its former appreciation from mankind. I am no prophet, nor the seventh son of the seventh son, yet I cannot resist the temptation to show you the chick that lay in the egg, in my last article on this subject—when speaking of honey as a prophylactic. Honey is destined not only to take an important place in medicine, but in *state medicine* in particular. As a prophylactic, it will turn up as a giant in the way to stay the march of epidemics. Why this extravagant idea? You know well enough, Dr. S., that in the case of a victim of cholera, yellow fever, or of any other acute malignant malady, it is the liver that receives the first blow—the glycogenic process is stopped or greatly impaired, suppression of the urine follows with a dire train of symptoms all pointing to the grave. If our theory is correct as to the behavior of honey in the liver, honey is to the liver what oil is to machinery; the wear and tear of epidemic influences on it will do it little or no harm. Of course the protection is only secured by the daily use of honey as a diet, previous to the exposure of sickness. When the damage is once done, honey or any other remedy may fail to save the patient. The golden rule in medicine is, "Prevention is better than cure."

Austin,⊙ Texas, Feb. 21, 1887.

For the American Bee Journal.

An Experiment on Ventilation.

C. W. DAYTON.

Last fall I prepared an apiary of 112 colonies for wintering, by covering them first with forest leaves, and then with 8 inches of earth. A passage-way was provided from the entrance to the outside air, and a small space of the leaves at the top of the mound were left uncovered with earth, to allow upward ventilation, and the escape of moisture. The open space of leaves was protected from snow and rain by a hive cover. I should have said that 72 colonies were arranged in this way, and the remaining 40 were the same except that the leaves were entirely covered at the top, so that all chances for upward circulation was cut off.

They were doomed to a confinement of 150 days. On making examination on April 2, the 40 colonies were found dead, and 69 of the 72 were alive to enjoy a flight. Such long winters are almost enough to disgust the apiarist, and drive him from this northern country to continue his avocation; but when he realizes that it is so benefiting to the honey market, he is considerably relieved.

In many of the dead colonies I believe there had not been live bees for months, as but little of the honey had been consumed. Several combs where the honey had been taken out, contained 4 or 5 pounds of water. Four colonies that were in one end of long hives, while the other part of the hive was stuffed with leaves, showed the good effects of the space into which the moisture escaped. A few of the dead colonies left the combs and hive clean and nice, but the majority befouled the hive and combs that affords a chance for "frame scraping," and the microscopist to charge his instrument for large game.

There was but little if any signs of brood-rearing. Those colonies that had the most upward ventilation seemed to have fared the best. Their cold and devitalizing condition brought them out all right; however, I hardly think they suffered much with the cold, as I think they were able to generate sufficient warmth for comfort, and some to spare.

It should be remembered that the more porous the coverings are, the requisite amount brings equal warmth and a drier condition.

Bradford,♂ Iowa.

From the Canadian Bee Journal.

Combinations for Honey-Producers.

J. M. HICKS.

When viewed from a practical stand-point, this seems to me a step in the wrong direction, especially so if we are allowed to judge of other combinations, such as Boards of Trade, Railroad Corporations, and many others I could mention of which I do not wish to leave unnoticed, the Coal Oil and Express Combinations, all of which have and are still continually sacrificing every principle of justice in order to accomplish their cunningly devised plans of injustice toward the many. These things will, at some future time, be more fully noticed and properly managed by the masses. Such corporations seem to flourish like the "green bay tree" for a while, but *God is just*, and will, doubtless, put it into the hands of His people to rectify these inhuman wrongs now exercised by almost every organization in existence. It has for many years been the custom of many honey-producers to consign their crop to some commission dealer in some city, for instance, one C. O. Perrine, of Chicago, who used to deal heavily in pure honey as furnished by the bee-keepers, as well as much of his own bogus production added, in order to make more extended sales. More than once have we seen his bogus productions in glass jars and tumblers for sale in the grocery stores of our own Hoosier State. Mr. C. O. Perrine was not alone in such dealings, as well as quoting honey at certain figures, far below the actual sales made.

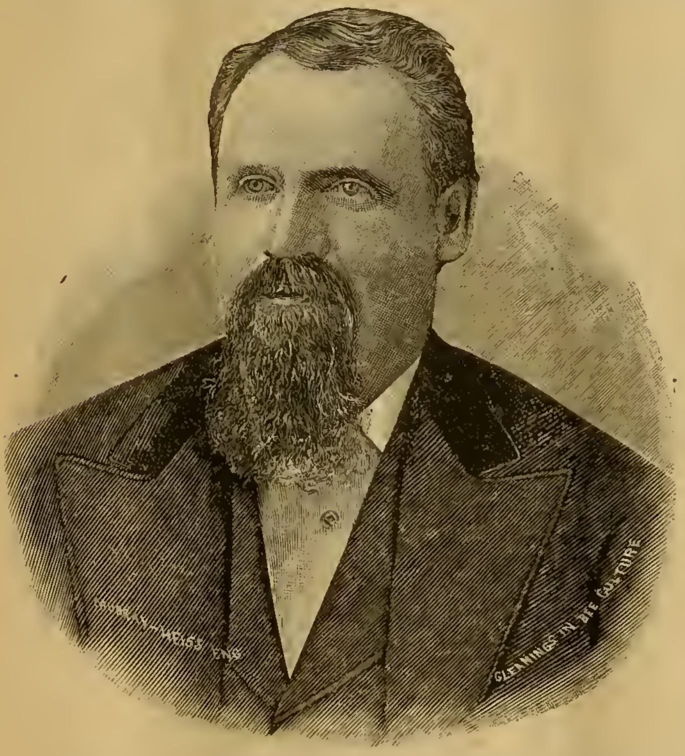
We also find for several years past the quotations of honey (not glucose) have been very low, by the various commission men in many cities, especially in Chicago and Cincinnati; at the same time I retailed all the honey I could produce at 20 cents for extracted and 25 cents per pound for comb honey. And at this writing I have disposed of my 1886 crop at 20 cents per pound, something over 4,000 pounds, all of which has been sold direct to the consumer, and not a pound went into a grocery store or to a commission merchant.

I have long since found that it takes industry to produce, as well as to sell honey at a paying price. The former commodity (industry) does not in a very great degree abound among the commission men of the present day, except at the expense of the producer, hence every producer can well afford to be his own salesman, provided always he desires good and reasonable returns for his honey. It seems to me after many years of close observation and contrasting the past with the present state of things, that it would be vain for the bee-keepers of America to try such a scheme as heads this article. It is a true saying, and worthy of full consideration, that even in all such combinations, the big fish eat up the little ones, and the stock goes up or down as the case may be. But one thing is sure, that the little fish soon find themselves far in the rear of the sharks, which has been, and is yet, the order of the day among all combinations, and the many suffer at the hands of such organizations; hence I for one, am opposed to all movements, especially so, when they have such a strong tendency of becoming a monopoly, which, if once organized, would have no other object in view than to control the honey trade, as against the consumer and directly in the interests of such organized monopoly. In fact, so far as our commission honey dealers at this date are concerned, it almost amounts to the same thing; a few of whom have control of the trade now in their locality, and we often hear of sad complaints from parties who make consignments, failing to receive enough in return to pay ordinary expenses of production.

Battle Ground,+o Ind.

Well done, friend Hicks, you need no combination to boom price for you. We wonder how many more of our bee-friends will see the necessity of establishing a home market, by allowing no person, whether rich or poor, to go without a supply of honey, at all times of the year, if effort, honest dealing and good honey will secure it. Bee-keepers have been giving their attention too much to cities and towns, and allowing the rural population to go without. We have never known an instance, where the proper effort was put forth and the best management adopted, that honey could not be sold in much larger quantities. There is not one quarter of our territory where honey might be sold, occupied to-day. In one district where a house-to-house canvass is being practiced, the sales are increasing at every round; in fact the canvasser is himself astonished at the large quantities he is able to sell, and after paying the ordinary wholesale price for it, finds he can make more money in that way than he could by hiring by the day or month. Of course he is well suited to his occupation. How many thousands of ladies and gentlemen have we idle at the present time, or earning very small wages, who, if they could embark in the sale of honey and apply themselves with the same diligence, might secure a much better living? and who could refuse to buy honey from a lady? Any who embark in this business and endeavor to succeed, will be conferring a benefit on the bee-keeping public. What you say in reference to placing our honey in the hands of men who adulterate, cannot be put too strongly, for, no doubt, great injury is done to our market by these men. It is quite a common thing in London to see large shipments of honey from America and other places sold at 3 to 5 cents per pound.—Ed. C. B. J.

[There are two sides to all debatable subjects. The above presents good reasons for doing what the American Bee Journal has for years advised—that of building up local markets in every village and hamlet in America, and we still believe that to be the true solution of the difficulty.—Ed.]



From Gleanings.

Gilbert M. Doolittle.

A NEIGHBOR.

G. M. Doolittle was born April 14, 1846, near his present location, in the town of Spafford, Onondaga County, New York. His parents were natives of Connecticut, and moved to this State a few years before he was born; hence the thoroughness, energy and activity of the "Yankee" are largely manifested in the subject of this sketch. From his earliest youth, Mr. D. has been an admirer of the busy bee, taking great interest in them when kept by his father. Later on, nearly all the bees in this section of country perished with foul brood, so that from 1856 to 1862 a colony of bees was a rarity. After this the disease seemed to abate, so that, in 1868, bees were quite common again.

As 1868 was a splendid honey season, bee-talk was rife in this locality, which again brought to life old ambitions which had been crushed out by the former loss by disease among the bees, so that the spring of 1869 found Mr. D. with 2 colonies of bees of his own, as the starting-point to his present apiary. Wishing to know for himself all of the minutiæ of this (to him) interesting pursuit, he procured nearly all the bee-books of that day, and subscribed for the bee-papers. As his ambition led him toward the practical side of bee-keeping, Quinby's "Mysteries of Bee-Keeping Explained" was his favorite, the pages of which were as familiar to him as a nursery rhyme. His intense desire to learn and investigate the bees in every particular has been such that he has dreamed of them at night, and thought of them in his working hours to almost an absorbing extent, and to-day he is still a student, believing that there are many unexplored regions, and much room for the deepest thought, even on the practical part of this pursuit.

In the first years of his apicultural study, Elisha Gallup, then living in Iowa, gave him by letter much practical instruction, which, together with Gallup's articles in the different papers of that time, so grew into his life that he went by the name of "Gallup" among bee-keepers about him for several years; and to-day he is often heard to say that there never has, to his mind, been a greater man in the realm of bee-keeping than E. Gallup. Gallup, in his private letters, laid great stress on good queens, claiming that around the queen centered all there was in bee-keeping, which has caused the subject of this sketch to study along the line of queen-rearing to a much larger extent than any other part of this interesting pursuit, and it is believed by him that much of his success as a honey-producer has come from this, and his ever-anxious care to get the hive filled with brood at such a time that there would be multitudes of field-bees at the opening of the honey harvest.

[Mr. G. M. Doolittle, whose likeness is on this page, is one of the most successful and practical of American bee-keepers, and has a world-wide reputation as such. He is well-known as a writer for all the American bee-periodicals, and faithfully gives his plans and methods to the public year after year. He is genial and companionable, and one of America's sons that she is proud to own and honor.—Ed.]

For the American Bee Journal

Sections Filled with Comb.

C. H. DIBBERN.

I have carefully read the articles of Mr. Hutchinson, on page 200, and Mr. Thielmann, on page 201. Mr. Hutchinson has hit the nail on the head squarely, when he says: "I can think of one reason why honey stored in drawn comb might remain longer unsealed, than that stored in foundation, that was drawn but slightly in advance of the filling; *i. e.*, the drawing out and filling were both in progress at the same time. The opportunity for ripening is greater when the honey is not very deep in the cells." That is just the conclusion I came to, after years of experimenting. But the fact, that honey stored in full, drawn comb is more apt to sour than that built by the bees or drawn from foundation, is not my only objection to the use of such combs.

In an apiary that is run on correct principles, there will be few or no combs built during the white honey harvest to carry over to another year to be refilled. Then it is the combs mainly built late in the season that are extracted and carried over. Now it is well known that comb partakes largely of the color of the flowers on which the bees are working at the time. Such combs are usually dark or yellow, and heavier than those built in the white clover season. Then, too, the wood of the sections is always more or less soiled, either by propolis, honey that has leaked out, dust, bleached out by light, or stained by getting wet. It is almost impossible to get such sections to look as neat and clean as new ones.

Mr. Thielmann seems to think that my trouble with old comb arises from the fact that I did not have the bees clean them up immediately after extracting. Now if this was the one thing needful, then Mr. Thielmann and other writers should always state this, as other wise bee-keepers, who have not "progressed" as far as he thinks he has, might ruin their honey crop, as he admits that honey will sour in the combs unless cleaned by the bees the previous fall. Well, I tried that plan some years ago, but I could see no difference between combs cleaned up by the bees in the fall, or cleaned but by the bees in the spring, as they will clean them up thoroughly before they will put a single drop in. I also found it a nice job to get the bees out of the sections a second time in the fall. Sometimes they would litterally pack themselves into these empty combs, and neither smoke nor shaking had much effect on the benumbed bees, during cool days. Now as I could see no particular advantage of fall-cleaned-up combs over spring-cleaned ones, I concluded that this extra work was very much like "puttering."

My only object in calling attention to this subject is to induce bee-keepers to be more particular, and produce a better quality of honey. Since I have discarded the use of old combs, I use nothing but new white wood sections, with separators between each comb, I have built up a demand for my honey that is far beyond my ability to supply. During the past season I could have sold many thousands of pounds after my 10,000 was gone, could I have obtained such honey as I produced.

Mr. Thielmann seems to think that I could not distinguish the sections that had been filled with old comb, but I venture to say that with me, nine out of ten would grade "No. 2." Mr. T. says that in extracting he shaves down all uneven or bulged combs, which shows he does not use separators, another fatal defect in a progressive bee-keeper. Now if he would shave these combs down so they would not be over ¼-inch thick, it would be about equal to good foundation, and would do away largely to my objections to old comb.

Mr. T. makes one extraordinary statement, viz: "Many times the bees will fill a case before they would enter one with only foundation in the sections." Now I will admit that the bees will fill the empty combs a little quicker, but when filled they seem to hesitate about sealing it up, seeming to know that it is not sufficiently ripened to be capped. I have watched combs, side by side on the same hive, one of foundation and the other comb, and the first would have every cell capped the soonest. Indeed, the bees often persistently refuse to cap cells near the wood at all, in these comb-filled sections.

I am glad that I have attracted attention to this subject; we want to get at the truth of the matter. I want to hear from Mr. Heddon, Dr. Miller, Mr. Pond, and also further from Mr. Doolittle, Mr. Dadant and others. I have no interest in the matter, only that I desire the production of the very best comb honey. The trouble is in old sections and combs; we first use the best, and soon those that are not so good, and by-and-by we are found using the bad. We all know the result—dirty sections, bulged combs, honey souring and running all over everything, disgusting dealers, low prices, dissatisfied consumers, and "blue" bee-keepers.

Milan, Ills.

Irish Farmers' Gazette.

Races of the Honey-Bee.

H. W. LETT, M. A.

I submit the following description of ten different varieties of the *Apis mellifica* which are kept in hives:

I—BLACK OR BROWN—The ordinary hive-bee or honey-bee, called by the way of distinction, the black or brown, from being almost one uniform brown-black color, with slight indications of paler bands on the abdomen, and clothed with grayish brown hairs. Until within the last fifteen years, no other bee was known in north or west Europe. This bee, after escaping, has made itself wild in the American and New Zealand woods.

II—ITALIAN ALP.—The Italian Alp bee, sometimes called Ligurian, is indigenous to the mountainous district that lies in the north of Italy round about the lakes Magiore and Como. It is of a light orange yellow color, with two orange red bands on the abdomen, and is longer and more slender than the black. They are better honey gatherers, more hardy and prolific, and very courageous in defending their own hives, even from the ravages of the wax-moth.

III—CYPRIAN.—The Cyprians are natives of Cyprus and part of Turkey in Asia. They are yellow, quite slender, wasp-like, and smaller than Italians. They always have a yellow shield mark on the back between the wings. They are strong, excellent honey gatherers, winter better than any other race, and are proof against being robbed by other bees. But they are easily excited, and most revengeful stingers.

IV—SYRIAN.—The Syrian bees are found on that part of Asiatic Turkey which lies north of Mount Carmel. They are of the same size, qualities, and temper as the Cyprians, from which they differ in showing less yellow, and being on the whole of a grayer color over their whole bodies. They are quite distinct from the next variety.

V—HOLY LAND.—The Holy Land, or as the natives call them, the Holy Bees, are found in Palestine, south of Mount Carmel. They are marked like the Cyprians, but their hair is so light in color they appear to be beautifully striped. Their size is smaller than Italians, but larger than Cyprians. They are very active and far-flying, most wonderful cell builders, and get honey from red clover; but they are ready to sting, become furious at the least smoke, and run off their combs when one is lifted from the hive.

VI — TUNISIAN. — Tunis, on the north of Africa, has a peculiar race of bees. They are the same in size as the Cyprian and Syrian, but their color is dark brown—even darker than the common black or brown. They are active workers, keep on the combs when being handled, and bear smoke better than other Eastern races; but they are liable to attack a person coming near them, even though not interfered with.

VII—CARNIOLAN.—The Carniolan bees are natives of Carniola, in South Austria. They are longer and thicker than the black or brown, being the largest domesticated European bee. The color is a rich, dark brown, nearly black, while each ring of the abdomen is clearly marked by whitish-gray hairs, giving it a silvery look. They are equal to Italians in honey gathering, fecundity and hardiness, while they are of a most remarkably gentle disposition, never attacking the manipulator, except when they are treated with improper roughness.

VIII — HUNGARIAN. — The bees peculiar to Hungary are the same size of, but far blacker than the common brown. They are very fair honey gatherers, and as gentle as Italians, but their propensity to swarm renders them very uncertain and unprofitable.

IX— EGYPTIAN. — The Egyptian bees are like Syrians in size, but quite yellow, like the Italians. They abound, both wild and in domestication, along the valley of the Nile, and while famed for good honey gathering qualities, are without exception the most ferocious bees known outside of India.

X—SOUTH AFRICAN.—There is an excellent race of bees, both wild and hived, in the Cape Colony, which it is to be hoped will soon be introduced to our bee-keepers. They are the size and color of Italians, but grayer, while they are more tractable, and at the same time very prolific, and of remarkable working powers; where honey is to be gathered, they keep at it early and late, and often are at work even by moonlight.

It is from the best of these races that the advanced bee-keepers of the world are now endeavoring to concentrate in one strain those characteristics which commend themselves as desirable in the best bred bee. And it may be safely stated that the honey-bee of the future will be as superior to the bees known to us twenty years ago, as a pure Shorthorn is to an old brindled cow.

County Down, Ireland.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, $2.50. Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

Local Convention Directory.

1887. *Time and place of Meeting.*

May 4, 5.—Texas State, at McKinney, Tex.
B. F. Carroll, Sec., Dresden, Tex.

May 5.—Progressive, at Bedford, Ohio.
Miss Dema Bennett, Sec., Bedford, O.

May 5.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

May 10.—Keystone, at Scranton, Pa.
Arthur A. Davis, Sec., Clark's Green, Pa.

May 10.—Cortland Union, at Cortland, N. Y.
D. F. Shattuck, Sec., Homer, N. Y.

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 26.—West Lake Shore Central, at Kiel, Wis.
Ferd Zastrow, Sec., Millhome, Wis.

Dec. —.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☛ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Successful Wintering of Bees.—I. A. Travis, Lyons,○ Wis., on April 13, 1887, says:

I put in the cellar last fall 110 colonies of bees, and on April 2, 1887, I took out 109 colonies, all in good condition. The one that died, starved but a few days before I put them out. Is this not doing well?

Feeding Honey in Musty Combs.—A Subscriber at Prophetstown,○ Ills., asks the following:

I have lost several colonies of bees from diarrhea, their combs being left in a musty, bad condition. Is there any danger of the bees contracting disease, if this honey is fed to healthy colonies?

[No; it will be as good as any for spring feeding.—Ed.]

Gathering Pollen.—S. Burton, Eureka,⊙ Ills., on April 16, 1887, says:

My bees have wintered on the summer stands all right, except one colbny that I neglected to pack as I did the others. I had 15 colonies, and I now have 14 that are good and strong. They have been gathering natural pollen for several days. My bees are pure Italians, hybrids and blacks, in separate hives.

Spring Protection of Bees.—Mrs. H. Hills, Sheboygan Falls,○ Wis., on April 14, 1887, says:

If the Rev. Wm. F. Clarke could look in my hives to-day, he would see how the uninstructed mind was obliged to solve that problem, "spring protection," and did succeed in "killing two birds with one stone," by securing, at the same time, "contraction of the brood-chamber." I had 2-inch chaff division-boards at both sides and ends of ordinary Simplicity hives, with frames crosswise, and frames hung lengthwise in winter and spring. It took all my first year to climb that (to me) almost insurmountable obstacle. The plan involves a world of work and bother, but it is perfectly successful. No dead bees or moldy combs are in the hives, and no spring dwindling!

Building up Starving Colonies.—T. F. Kinsel, Shiloh,♂ Ohio, on April 14, 1887, says:

Last fall when putting my bees into the cellar I found 8 weak, light colonies. These were set aside by themselves, so they could be fed, if necessary. The middle of February I made an examination and found these 8 colonies starving. I took a frame of sealed white clover and basswood honey and inserted it in the centre of the cluster. They soon became quiet again, and are as good to-day (put out of the cellar on April 2, and on April 8 I finished) as any. All my bees spotted their hives when put out; these 8 certainly no more than the others. My cellar can be kept at 38° to 42° Fahr. All the colonies had brood when put out of the cellar, and some of it was capped.

Swarming Expected Soon.—F. L. Merrick, Waldron,○ Ills., on April 14, 1887, says:

My bees were packed on the summer stands, and all came through the winter in fine condition. They are bringing in pollen lively. They had an abundance of honey, but I commenced feeding in February. I think some of them will swarm within 30 days.

Wintered without Loss.—L. Reed, Orono,⊙ Mich., on April 14, 1887, writes:

On Nov. 15, 1886, I put 54 colonies of bees into the cellar in good condition. I have been putting them out, a few at a time, since April 9; to-day I put the last out, all having come through in splendid condition—no disease, no light colonies, and all strong in bees. We have had a steady winter, with sleighing up to April 1. We are having nice weather now, the mercury being up to 70° in the shade to-day, and has been there a few days before. Bees are carrying in pollen to-day. White clover is starting nicely, and prospects for a good honey season are fair.

Favorable Spring for Bees.—Mrs. L. C. Axtell, Roseville,○ Ills., on April 14, 1887, writes:

My 202 colonies of bees are in fine condition for this time in the spring. Five colonies were lost from out-door wintering, but all except one that was stolen was due to carelessness in preparing them, as all that were prepared properly, and had queens, are in good condition. There was no loss in the cellar-wintering of 113 colonies; 4 are queenless, but fair colonies, and I shall not unite them with others, but supply them with eggs from other colonies, as I shall soon need to make up nuclei, and they are fair colonies. I secure excellent results in giving a space of an inch or more below the brood-combs in winter, as then they never get clogged up as they formerly did. Of those wintered in the cellar, we raise the front board of the hive, giving a large entrance. The bees taken out of the cellar on March 1 have from 3 to 4 combs of capped brood, and plenty of bees to keep them warm. Those just taken from the cellar have but very little brood, and about the same number of bees. This spring has been very favorable to putting bees out early, as there has been but very little severe weather since March 1.

Disagreeable Weather, etc.—Abe Hoke, Union City,○ Ind., on April 19, 1887, says:

This is a beautiful morning; but yesterday was a very disagreeable day, as it snowed all the afternoon. It was cold last night; the snow was 3 inches deep. In my letter on page 235, I am made to say that I had not lost an entire colony in three winters. It should have read, "in three winters in straw hives;" for I lost 13 colonies in wooden hives during the winter of 1885-86, which I reported to the Bee Journal.

["In straw hives" was omitted, by an oversight of the printer.—Ed.]

Honey and Pollen Yielding Trees.—In reply to a question in a private letter from Mrs. H. Hills, of Wisconsin, in regard to alder, soft maple and poplar yielding honey and pollen, Prof. A. J. Cook says:

The alder yields some honey and much pollen. The maples—all of them—yield richly of both honey and pollen. Had we populous colonies at this season of the year, we should find the maples among our best honey-plants. Poplars and willows certainly furnish nectar as well as pollen.

My Experience with Bees.—Frank Andrews, Smethport,♂ Pa., on April 18, 1887, writes:

I commenced keeping bees in 1882; got my start by taking 4 colonies on shares. I kept them only one year, as the owner would not furnish half the hives. We divided them, and I had 3 colonies of my own in the spring of 1883. The spring of 1886 I had 22 colonies, and last fall I had 42, and 2,756 pounds of honey, about half of it being comb honey in one-pound sections. I have lost no bees in wintering, had one colony given to me, and now have 43 very strong colonies. I winter my bees on the summer stands, and do all feeding in the fall. I keep them as warm as possible through the winter and spring until they swarm. I obtained 185 one-pound sections of honey from one colony; this being the largest amount from one colony ever secured in this locality. This colony is a black one; I got it 2 years ago last September from a tree which had been cut down and the honey removed. Their queen is still alive. The colony has never swarmed. I have 12 of this queen's daughters; they are very gentle. I also have Italians and Holy Land bees, but none of them ever produced more than 124 pounds of honey. The Holy Land queens mated with black drones are the crosest bees I ever saw. I have one colony that I always chloroform. I worked them for extracted honey last year, and the honey of this one colony sold for over $20. I shall kill the queen of this colony if I can ever find her again.

Losses of Bees in New York.—O. L. Whitcomb, Argyle,○+ N. Y., on April 15, 1887, says:

There is a fearful mortality among bees in this section this winter. Our cold weather and snow covers a period of 5 months already, with May to hear from. I started in the fall with 8 colonies, and have 2 colonies left. "Eighty colonies out of 150" is one man's loss within two miles—a discouraging outlook.

The Cappings over Honey.—C. P. Dadant, Hamilton,+○ Ills., writes:

Mr. Hutchinson (on page 232) now bases his arguments, mainly, on the reports of some distinguished apiarists who found "honey so thickened that it did not fill the cell more than half full." I do not wish to be understood as disputing this statement, but I do say that I believe it comes from mistaken observations. Let Mr. Hutchinson take a can full of honey, no matter how thin, when sealed by the bees, and whenever he succeds in evaporating it, by whatever process, until the can is only half full, I will silently, and willingly, give up.

Bees Packed in Sawdust.—W. Z. Hutchinson, Rogersville,♂ Mich., on April 14, 1887, says:

Bees have come through in excellent condition. I have 110 colonies; 80 are packed in sawdust, as recommended in the first chapter of my little book.

Protecting Sections from Propolis.—Mr. J. J. Roe, Buchanan,♀ Mich., writes:

While taking off honey last summer I saw the desirability of a section-case which would better protect the sections from propolis. I thought of a blank strip to correspond with the sections, and had some of that kind made. I then made up a hundred cases, and thought I would not give the invention to the public before testing it in my own apiary. This spring I received a catalogue from the dealers in bee-supplies, who made my cases, which advertised my invention. I thought *perhaps* the dealers got the idea from the work they did for me. I thought I would get a patent, and so I sent a model to Washington. On page 232, Messrs. J. W. Powell & Son have illustrated almost exactly my invention. My case is reversible, and for simplicity of construction I do not think it can be excelled. If Messrs. Powell & Son invented their case before I did mine, I willingly make my bow to them; if not, will they please make theirs, etc.

[It is only a *waste of money* to attempt to patent the "blank strip to correspond with the sections," to keep the sections free from propolis. As we stated in an editorial item on page 147 of the AMERICAN BEE JOURNAL for March 9, 1887, we have several of such "protecting strips," in different patterns, in our Museum, which have been there for years, and antedate both Mr. Roe and Messrs. Powell & Son—the only difference being the use of one of these strips at the top as well as on the bottom of the "cases" by Messrs. Powell & Son. The "cases" in our Museum were each described in the BEE JOURNAL, when received.—ED.]

White Clover in Bloom, etc.—John H. Christie, Dyersburg,+○ Tenn., on April 18, 1887, writes:

Bees have wintered pretty well in this part of Tennessee. The winter has been very mild. My bees brought in pollen on Jan. 31. They got along very well until the last cold spell, then the most of the colonies stopped breeding, and some of them run short of stores so that I had to feed them some. I have had 4 swarms so far, all from one colony. It cast the first swarm on April 2, then one on April 10, another on April 12, and the last on April 14. They are about ¾ Italians. I saved all of the swarms, and they are all doing well. I have heard of a good many swarms throughout the country; I had ripe strawberries on April 15, and saw some white clover bloom to-day—both in the open country. I am 68 years old to-day, and have kept bees about 25 years. I have about 100 colonies in all.

Two Feet of Snow on the Ground.—J. F. Latham, Cumberland,♀ Me., on April 14, 1887, writes:

At this date there is a greater body of snow on the ground than I have ever known at any corresponding date before. Although bare spots are beginning to appear in the open land, there is still about 2 feet of snow in the woods. The past winter has been of unusual severity, cold and blustering. Feb. 9 was fair and mild, as was also Feb. 16 and 19; then it was very severe until March 12, when it began to moderate again. On March 13 and 14 all of my colonies of bees, that seemed to need it, enjoyed a cleansing flight. About a dozen colonies remained quiet. Three colonies have evinced no desire to fly during the winter, but are apparently in a most satisfactory condition, dry, cozy and comfortable. Six colonies soiled the entrances to their hives before their flight, but not badly. Everything considered, I am well satisfied with the *status* of all of my colonies at the present time, as they have been working "with a will" on rye-meal for the past five days, from every hive. Pollen on the willows is beginning to make its appearance, which makes me feel like reporting "50—50," but as it is I will wait *until* spring, and then see how many colonies I have.

No Rain for Two Years.—W. G. Ponton, Corwin,⊙ Tex., on April 9, 1887, writes:

"Texas against the world for honey," is what one of our Lone Star bee-keepers has said. I really do not know whether this is correct or not, but I would state it thus: Texas against the world for drouth. We have not had a good rain since the spring of 1885, and 1887 is coming in more gloomy than ever. Wheat and oats are considered a complete failure; there is yet hope for corn, should we get a good rain this month, and yet, considering the great drouth, bees are doing remarkably well, owing to the peculiar flora of this country, which makes it *par excellence* for the production of honey. All we need is enterprising apiarists. Bee-Keeping is conducted here according to the log-gum system. Every Saturday a very spicy visitor calls about 11 a.m., in the shape of the AMERICAN BEE JOURNAL, heaping full of good news.

Wintered Well in the Cellar.—F. A. Gibson, Racine,○+ Wis., on April 18, 1887, writes:

My bees have wintered in splendid condition, having lost none. They were confined from last Thanksgiving Day to April 9, without having a flight. They did not spot the hives any when put out. There were such large clusters of bees hanging from the combs that I had to shake them off to get the bottom-boards on. They commenced carrying in pollen the next day after being put out. The temperature was at 41° in my bee-cellar when I put them in, and continued so until I removed the bees. The cellar is under the honey-house, bricked up, with an air-space all around it, and 10 inches of sawdust on top, between two floors. The bottom floor is of cement, closed by double doors from outside.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

AMERICAN
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BEE JOURNAL

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ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. This should be scattered into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents; 100 for 50 cents; 500 for $2.25—all postpaid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
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Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cock's Manual	2 25	2 00
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Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

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E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to **60** cents, postpaid. Subscription for one year and the binder for $1.50.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey ; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c. ; choice, 12½@13c.—

BEESWAX,—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is improving.

BEESWAX.—23c.
Apr. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, 4@4¾ cts. Comb, white, 7@13c. Market firm.

BEESWAX.—Scarce at 19@22c.
Apr. 4. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.

BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Firm at 21c. for prime.
Apr. 21. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@14c.; amber, 7@9c. Extracted, white, 4½@5c.; light amber, 3¾@4¼c. Market quiet.

BEESWAX.—19@22c.
Apr. 16. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—28 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Apr. 21. C.F. MUTH & SON, Freeman & Central Av.

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 8@6½c.; in small packages, 6½@7c.; dark, in barrels and kegs, 4@50.—Demand good.

BEESWAX.—25c.
Mar. 28. A. V. BISHOP, 142 W. Water St.

Convention Notices.

The next regular meeting of the Cortland Union Bee-Keepers' Association will be held in Union Hall at Cortland, N. Y., on May 10, 1887.
D. F. SHATTUCK, *Sec.*

☞ The next meeting of the West Lake Shore Central Bee-Keepers' Association will be held on May 26, 1887, in Koekring Hall, at Kiel, Wis.
FERD ZASTROW, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887. D. A. FULLER, *Sec.*

☞ The ninth annual meeting of the Texas State Bee-Keepers' Association will be held at McKinney, Collin Co., Tex., on May 4 and 5, 1887. All bee-keepers will find a hearty welcome. No hotel bills to pay. An interesting programme is ready. Come one, come all. B. F. CARROLL. *Sec.*

The Keystone Bee-Keepers' Association will hold its next annual meeting on Tuesday, May 10, 1887, in the Court House at Scranton, Pa. All are welcome : come and bring your knotty questions. Interesting an instructive essays are promised by noted apiarists of the country.
ARTHUR A. CLARK, *Sec.*

☞ The semi-annual meeting of the Progressive Bee-Keepers' Association will be held in the Town Hall at Bedford, O., on Thursday, May 5, 1887, at 10 a.m. Manufacturers of supplies for bee-keepers are requested to bring with them, or send, samples for exhibition. There will be a "picnic dinner." All interested in apiculture are cordially invited to be present.
MISS DEMA BENNETT, *Sec.*

History, biography, natural scenery, story, song and poem, make up *Frank Leslie's Sunday Magazine* for May, which is bound to give pleasure wherever it is read. There is a due admixture of grave and gay in the number, and the editor shows much skill in keeping track with the season of the year.

* * *

A Cheap Smoker.—" Martinsville, Ohio, April 11, 1887.—Messrs. Bingham & Hetherington, Abronia, Mich.: Enclosed find $2.50 for two Large 2½-inch Bingham Smokers (wide shield). They are for my neighbors. I have one of the Bingham Smokers that I have used six years, and it is as good as ever. Send ½-dozen rates.—Respectfully, AMOS R. GARNER." 17A4t

* * *

Continuous Advertising brings much larger returns, in proportion to the outlay, than periodic or spasmodic advertising.

Advertisements.

BEES and FOUNDATION—at E. S. Hildemann's, Ashippun, Dodge Co., Wis.
17A6t

FOR Sale or Trade.—65 Colonies of BEES, principally Italians, on nice, straight worker-comb, mostly in 2-story movable-comb hives. Price, $2.75, really worth $3.50. Call on, or immediately address, H. J. SCHROCK, Goshen, Ind. 17A1t

FOR SALE.

70 COLONIES of Italian and Hybrid BEES—10 Colonies in 10 L. frame hives, balance on 8 American frames in Simplicity-made hives. ☞ Will sell all for $4.00 per Colony.
J. B. KEELER,
17A2t CARLINVILLE, ILLS.

COMB FOUNDATION.

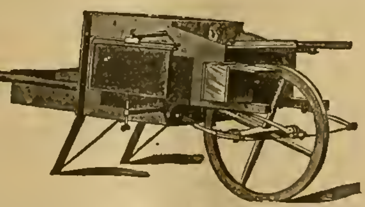
DUNHAM Brood Foundation, 40c per lb; Extra-Thin Vandervort Foundation, 45c. per lb. WAX made into foundation for 10 and 20c. per lb. Ten per cent. discount on all orders received before the 15th of April. Samples free.
F. W. HOLMES,
9Dtf Coopersville, Mich.

100 COLONIES of ITALIAN and HYBRID BEES for Sale Cheap. H. J. SMITH,
11D4t Burlington, Wis.

WRITE

TO SMITH & GOODELL, Rock Falls, Ills., for low prices on Apiarian Supplies.
16A4t

Systematic & Convenient



DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only........... $18 00.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHCAGO, ILL.

BOTTOM REACHED.

ITALIAN BEES in Heddon Hive $4.00
QUEENS, Untested, 80 cts.; Tested... 1.60
NUCLEI without Queens, per Frame.. 70
To Nucleus add price of Queen wanted.
☞ Remit by P. O. Money Order, to
C. WEEKS,
15A4t CLIFTON, TENN.

PURE ITALIAN BEES, bred ten years from imported mothers, at $5 per colony. Hybrids less. A. L. GOULD, Ridgeville, Ills.
18A3t

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE EXTRACTED HONEY, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 7 cents per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

THE WESTERN WORLD
GUIDE and HAND-BOOK
OF USEFUL INFORMATION.

For HOME SEEKERS or Tourists, Capitalists or Laborers. A vast amount of information not to be found elsewhere at any price.

A cloth-bound book, 4x7 inches, 288 pages
Price, 50 Cents.

The following is only a part of the Contents:

Colored Maps of all the States and Territories, including Alaska and District of Columbia.
Diagrams showing area, population, products, Government, State, School and Indian Lands of the several States.
Histories of each of the States from the Earliest Times.
How to Acquire Lands of any kind belonging to the Government by any forms of entry who may acquire them, and the different laws,; applicable to the different sections.
Postal, Pension and Patent Laws of the United States.
Coats-of-Arms of the States and Views of Celebrated Places, and of life in different regions.
Rules for measuring Lumber, Logs, Grain, Liquids, Tables of Weights and Measures of all kinds, Interest Rules and Tables, Lumber Tables.
Systems of Land Measures in various parts of the United States.

Contains also a Million Useful Facts.

The Weekly Bee Journal, for one year, and the Guide, postpaid, for $1.30.

THOMAS G. NEWMAN & SON
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

100 Colonies of Italian Bees,

Strong, first-class in every respect, For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS the permission of the writer to publish the following :

"Forest City, Iowa, March 28, 1887.

W. Z. Hutchinson, Rogersville, Mich.—Dear Sir, and Friend : I am in receipt of your pamphlet—'The Production of Comb Honey.' It is the neatest little thing I have seen lately. As a work of art it is as near perfection as printers in 'country offices' usually attain to. I venture the opinion that that cover was the work of a bee-keeper, or at least originated in his (your) creative brain. Nobody but a bee-keeper would have thought of such a unique and appropriate covering. The subject is treated in a very readable and creditable manner. I have been practicing substantially the same method, except the non-use of foundation. I shall try that this season.

Respectfully Yours, EUGENE SECOR."

☞ Reader, if you wish to enjoy the same pleasure as did Mr. Secor, send 25 cts., and a copy the book will be sent postpaid.
18Atf

200 COLONIES

OF

Choice ITALIAN and ALBINO BEES

FOR SALE AT

GREATLY REDUCED PRICES

Also a full line of

Bee Keepers' Supplies

COMB FOUNDATION from Choice, Select, Yellow BEESWAX a **Specialty**, at very low rates, both wholesale and retail. Do not fail to send for my 27th Annual **Catalogue** before purchasing.

Address, **WILLIAM W. CARY,**
Coleraine, Mass.
5Dtf Mention this paper when writing.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices : One-half ounce, 50 cents ; 1 ounce, $1 ; 2 ounces, $1.50 ; 4 ounces, $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

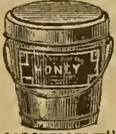
100 **COLONIES of Italian BEES** for Sale. DANIEL WHITMER,
9A9t South Bend, Ind.

INDIANA.

HEAD-QUARTERS for Pure Italian QUEENS. ☞ At prices that will surprise you. Write us for Catalogue and full particulars.
Address, MARTIN & MACY,
North Manchester, Ind.

EGGS FROM HIGH-CLASS POULTRY FOR SALE.
15A4t

NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

BEES AND QUEENS a Specialty.—Untested QUEENS, in May, $1.00. After June 1st, 75 cts. Price-List of Full Colonies, two and 3 frame Nuclei, Hives, Foundation, &c., Free.
15A7t JOHN NEBEL & SON, High Hill, Mo.

Dadant's Fonndation Factory, wholesale and retail. See Advertisement in another column.

Thirty Years a Queen-Rearer.

LONGER in the Business than any other man living. Send for Price-List.

HENRY ALLEY,
14Atf WENHAM, Essex Co., MASS.

THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms ; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison ; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse ; a valuable collection of recipes, and much valuable information.

Price 25 cents—In English or German.

THOS. G. NEWMAN & SON.,
923 & 925 West Madison Street, Chicago, Ill.

ARMSTRONG'S
New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

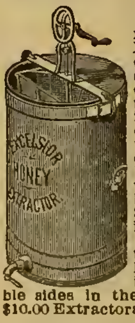
H. D. Cutting, of Clinton, Mich., says :—"Let me congratulate you on having such a good hive ; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	........$8 00
For 2 Langstroth "	10x18	"	.... 8 00
For 3 " "	10x18	"	..........10 00
For 4 " "	10x18	"	..........14 00
For 2 frames of any size,	13x20	"	..........12 00
For 3 " "	13x20	"	..........12 00
For 4 " "	13x20	"	..........16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

EXTRA NICE

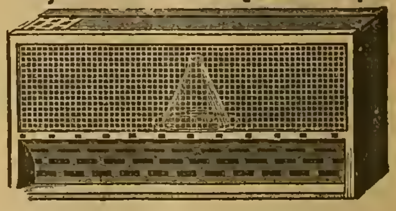
SECTIONS and Foundation at reduced prices. Send for samples.

Also a full line of SUPPLIES at very low rates. Price-list free.

☞ **Cash for Beeswax.**

A. F. STAUFFER & CO.,
3Dtf STERLING, ILLS.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50 ; 50, in the flat, $12.00. Address.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEST **ROOFING** Any one can apply it. Catalogue & samples **Free** NO TAR
ESTAB. 1866. W. H. FAY & CO. Camden, N. J.
Also St. LOUIS. MINNEAPOLIS. OMAHA.
15A8t

A GREAT SCHEME ! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,

J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIII. May 4, 1887. No. 18.

May shall make the world anew ;
Golden sun and silver dew—
Money, minted in the sky,
Shall the earth's new garments buy.

May shall make the orchard bloom ;
And the blossoms' fine perfume
Shall set all the honey-bees
Murmuring among the trees.

May shall make the bud appear
Like a jewel, crystal clear,
'Mid the leaves upon the limb
Where the robin lilts his hymn.

May shall make the wild-flowers tell
Where the shining snow-flakes fell ;
Just as though each snow-flake's heart,
By some secret, magic art,

Were transmitted to a flower
In the sunlight and the shower.
Is there such another, pray,
Wonder-making month as May ?
—*St. Nicholas.*

Mons. Eugene Francois Jonas, father of the late celebrated Leon Jonas, died at Amiens, France, on March 27, and was buried on the 30th. He was the oldest member of the Apicultural Society of the Department of the Somme, France, and is deeply mourned by his numerous friends and acquaintances in Northern France.

Promptness and Regularity.—Mr. Charles Solveson, of Nashotah, Wis., on April 24, 1887, writes us as follows :

> Last week's BEE JOURNAL was lost in the mails. Please send another. It is the first one that failed to arrive at our office in time during the past six years. It is the most "regular" periodical to arrive, of all that I ever subscribed for.

Should a number fail to come on time, we hope our subscribers will notify us *at once*, and we will with pleasure send another copy. If this is neglected for months, we may not have any left to send another.

Our systematic care in mailing, and promptness in putting them into the post-office here, are the causes of every copy arriving by just the same train on the same day, every week. Our subscribers know just when to expect them, and are but rarely disappointed—once in half a dozen years or so ! We do not think that one in a thousand goes astray or is lost ! So perfect are the postal facilities in America.

Price Lists are received from J. P. Moore, Morgan, Ky. (Bees) ; J. B. Hains, Bedford, O. (Bees and Supplies) ; A. G. Hill, Kendallville, Ind. (Bees and Supplies.)

Not Over-Production ! but imperfect distribution, is the cause of low prices and slow sale of honey ! ! This we have many times stated in these columns, and we do not fear any contradiction of the position we have taken. As corroborative evidence, we would ask the reader to refer to the article of Mr. W. Z. Hutchinson, on pages 280 and 281 of this issue.

In reference to our suggestion to defer the proposed convention on marketing our crops of honey, until early in the fall, Mr. H. says :

> I think that Mr. Newman's suggestion, on page 227, is a good one, viz : to defer holding a convention until the meeting of the North American Bee-Keepers' Society, next fall, in Chicago. As Secretary of this Society, I would suggest that at least one day (and the best day at that) be devoted at the next meeting to a discussion of this vital topic.

We fully endorse this suggestion, and refer it to the President, Dr. Miller, who, in the absence of any objection, we think will "declare" that to be the decision of the Executive Board of the society, and provide for the full discussion of the items named by the Secretary, viz : "the cost of production, prices at which honey can be sold at a profit, methods of putting up honey, commission men, cash buyers, home markets, city markets, foreign markets, development of markets, distribution of our products, associations, corners, etc."

Then let us have a full attendance of representative apiarists, and give the matter an exhaustive discussion. There is time enough between this and the meeting, for every one to perfect plans of thought in order to present *matured* projects for deliberation.

Dispensing with Middle-men.—At a recent meeting in London, Mr. Jones opened a discussion upon the co-operative distribution of the products of the farm.

Mr. Jones, like others who deal with the subject rationally, did not call for the extermination of all present distributors ; but he contended, and with reason, that there was a superfluity of middle-men, and that the producer and the consumer stood at the opposite ends of a line of persons who handed the goods from one to the other, each taking a bite on the way. The consequence was an enormous disparity between the price paid by the consumer, and the price the producer got for it.

Apiarists should place themselves in a position where they can use the middle-men to their own advantage—not allowing them to *make prices* for honey, or compete with one another to break down rates already established, but to handle the product under the supervision of competent apiarists who are cognizant of the amount produced, the state of the market, and the prices it should bring at wholesale and retail. The producers of the world seem to be awaking up to the magnitude of the work before them. "Let there be light !"

"I Want to look at a pair of eye-glasses, sir, of extra magnifying power." Dealer—"Yes, ma'am ; something very strong ?" "Yes, sir ; while visiting in the country last summer I made a very painful blunder, which I never want to repeat." "May I ask what that—er—blunder was ?" "Oh, yes ; I mistook a bumble-bee for a blackberry."

Falsely Accused.—The poor bees seem to be arraigned almost daily upon some trumped-up charge. While it is annoying to have it so, yet it is in the interest of the pursuit, rather than otherwise. Any attorney will admit that he enjoys the work of proving that a charge made against his client is "false and malicious." So is it in the case of the bees—the more unreasonable the things charged against them, the better does the case appear to all thinking and honorable persons !

In the BEE JOURNAL for April 20, page 243, we recorded the charge made by Dr. B. F. Dunkley, that the bees *ate out the hickory pins* with which he secured the combs to the frames. Now, on page 279, some malicious person has charged the bees of Mr. Clark, in Arkadelphia, Ark., with *eating up his young ducks ! !* as well as eating up the peaches !

This is making the thing ridiculous enough ! Were it not for the friendly action of insects to fertilize the flowers of fruit trees, there would be no fruit ! Bees are the fruit-growers' best friends ; but instead of appreciating their services, some of them are abusing the bees, and trying to prejudice mankind in general against them !

Middle-men are getting into disrepute. The peach-growers as well as honey-producers are now wrestling with the subject of marketing their products without the aid of commission men. The peach-growers are to meet at Dover, Del., on Thursday, May 12, 1887. The call sets forth the object of the meeting thus :

> There is now a prospect of a most abundant crop of peaches, and it behooves us to use timely action to have it properly distributed throughout the country. If sent to a few large cities a glut in those markets must necessarily ensue. We are as competent to place our fruit in the right market as the city commission men, and by a wise and judicious distribution to avoid the disastrous evils of low prices by overstocking a few places. Many other questions conducive to our interests will come before this convention, such as the invitation of dealers to buy directly of us at home, the establishment of a fruit market of our own in New York and other places.
>
> We must have lower freights. We must develop more new markets. We must imitate all the great and successful industries of our country by co-operating with each other for our own good. We must cease shipping at hazard. We must have system.

Men of Honor.—An old mercantile authority says that a man violates the laws of honor when he takes advantage of another's unskillfulness or inexperience, or the technicalities of the law, to impose on him. A man acts dishonorably when he does not make sacrifices to pay his debts promptly ; when he sells below the market price to get away his neighbor's customers ; and in all cases in which he does acts which if thoroughly understood, would tend to lower him in the estimation of his customers, or any good man.

Tried by this standard, how many dishonorable persons exist, even in apiarian circles, and yet, is it not a fair statement of the case ? Men of *honor* and sterling *integrity* are always at a premium in every pursuit ! Their opinions and advice are ever of value, and worthy of the generation and country in which they live !

Our Queries

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Honey in Brood-Frames or Sections.

Query 412.—All other conditions being equal, how much more comb honey will one colony or 50 colonies of bees store in brood-frames than in one-pound sections?—Ohio.

Not any.—JAMES HEDDON.

In the way you state it, there is no difference.—C. W. DAYTON.

I do not think they would store any more.—W. Z. HUTCHINSON.

They will not store a pound more if side-opening sections are used.—G. L. TINKER.

If the sections are properly adjusted, the difference in quantity of honey will not be much; though "how much more" is difficult to determine.—J. P. H. BROWN.

It will depend upon the bees; some colonies will work much better in sections than others.—H. D. CUTTING.

There is not enough to make up the difference in price that it would have to be sold at; or to pay for cutting it out and fitting it into sections, as some do.—G. M. DOOLITTLE.

I have no means of knowing for certain, but should guess there would be no great difference.—C. C. MILLER.

With an expert, no more; with a novice, often a third more, or even sometimes a much greater per cent.—A. J. COOK.

This is an impracticable question. Different seasons and localities will so operate that no answer of value can be given. As a rule, double the honey is stored in the frames here. Mr. Heddon does not find much if any difference in his locality.—J. E. POND.

I have never tried the experiment in the way you suggest. If you mean that the bees must build the combs in the brood-frames as well as in the sections, there will be but little difference, and the little difference will be in favor of the sections; because bees store honey with the greatest economy in thick store combs.—G. W. DEMAREE.

In cool seasons the difference is not very great. In hot seasons here, with a short crop, we have known the bees to refuse altogether to work in the sections. Some of our Eastern bee-keepers have a different experience, probably owing to the difference of the climate. At any rate no rule can be laid down. Much depends upon ventilation in hot weather.—DADANT & SON.

If the bees are to build the combs, there may be some difficulty in getting them to work in the sections in cool seasons. If combs or foundation are supplied in each place, and if the season is warm and honey is plenty, there will be no difference.—THE EDITOR.

New or Old Combs for Winter.

Query 413.—Will bees winter better on old than on new combs?

I think not.—G. L. TINKER.

I think they will.—C. C. MILLER.

There is no difference.—C. W. DAYTON.

I have seen no evidence in that direction.—W. Z. HUTCHINSON.

I see no reason why they should.—A. J. COOK.

We have never seen any difference.—DADANT & SON.

I prefer combs that have contained several litters of brood hatched in them.—J. P. H. BROWN.

Probably yes, if any difference; but this is the "gnat" and not the "camel" in the case.—JAMES HEDDON.

It is generally thought they will, but I do not know this to be a fact.—G. M. DOOLITTLE.

On old combs; and for the reason that they are warmer and stronger. The reason is obvious to all.—J. E. POND.

It is laid down that bees will winter better on old combs. For my part I have seen no difference.—H. D. CUTTING.

I have never seen any difference, if they fare alike as to quarters and stores. I used to winter many colonies that not only had new combs, but part of them were built only part of the way down.—G. W. DEMAREE.

We do not see why there should be any difference.—THE EDITOR.

Extracting from the Brood-Chamber.

Query 414.—Is it essential to extract from the brood-chamber in the production of comb honey?—T. P., Va.

No.—J. P. H. BROWN.

No.—G. L. TINKER.

No.—W. Z. HUTCHINSON.

No.—C. C. MILLER.

No.—A. J. COOK.

I seldom do.—H. D. CUTTING.

It is not, in proper management.—C. W. DAYTON.

I never take honey from the brood-chamber unless I have a special purpose for so doing. A brood-chamber full of brood and honey will give as good results as if the entire brood-chamber is full of brood alone, and I much prefer that condition of things, though many others think differently. To have an apiary in a starving condition at the close of the honey season, is the greatest misfortune that can well be imagined, even though a large honey crop has been harvested.—G. W. DEMAREE.

No. I never do, and any arrangement requiring such extracting to be done, I should consider very faulty.—G. M. DOOLITTLE.

No rule can be established, for much depends upon the season. We would advise to extract only if the bees are crowded for breeding room.—DADANT & SON.

No. Neither is it advisable. It complicates and increases labor, and does the bees and brood no good, to say the least.—JAMES HEDDON.

Much depends. Prevention of excessive swarming is a necessity to a large yield of comb honey, and the particular circumstances of each individual case must govern. No rule can be given that will apply to all cases or conditions; care and judgment must be used in the matter.—J. E. POND.

It is neither essential nor desirable to do so.—THE EDITOR.

Convention Notices.

The next regular meeting of the Cortland Union Bee-Keepers' Association will be held in Union Hall at Cortland, N. Y., on May 10, 1887.

D. F. SHATTUCK, *Sec.*

☞ The next meeting of the West Lake Shore Central Bee-Keepers' Association will be held on May 26, 1887, in Koekring Hall, at Kiel, Wis.

FERD ZASTROW, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887. D. A. FULLER, *Sec.*

The Keystone Bee-Keepers' Association will hold its next annual meeting on Tuesday, May 10, 1887, in the Court House at Scranton, Pa. All are welcome; come and bring your knotty questions. Interesting an instructive essays are promised by noted apiarists of the country

ARTHUR A. CLARK, *Sec.*

☞ The semi-annual meeting of the Progressive Bee-Keepers' Association will be held in the Town Hall at Bedford, O., on Thursday, May 5, 1887, at 10 a.m. Manufacturers of supplies for bee-keepers are requested to bring with them, or send, samples for exhibition. There will be a "picnic dinner." All interested in apiculture are cordially invited to be present.

MISS DEMA BENNETT, *Sec.*

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, $2.50. Five hundred will be sent postpaid for $10.00; or 1,000 for $15,00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest: O~ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Bees and Grapes—Some Observations.

G. M. DOOLITTLE.

For several years I have been interested in the discussion of the bee-and-grape question, and have many times wished I might add a few lines of proof that bees never injure sound grapes; but until the present season I had no grounds to work on, save that I had grape-vines scattered all through my bee-yard, yet bees had never attacked them. This and much which has been written on the subject is only negative proof that bees do not injure sound grapes. Negative proof is not what we want, but proof of a positive nature. During the past season I have had some experience along the line of bees eating grapes, and while it is not as positive proof in favor of the bees as I might wish for, yet it sheds some rays of light upon the subject.

On any warm afternoon during the month of September, a casual observer would have said, "Doolittle, your bees are destroying your grapes;" and at first I almost so believed myself, but after carefully watching I found out wherein the trouble lay. The Concord and Worden suffered the worst among the black varieties; the Agawam and Salem among the red, and the Lady and Belinda of the white. A close examination of all these revealed that the Concord, Worden and Belinda burst open during a damp night or warm, moist spell; for I would find scores of them at such times cracked about and near the stem of a fresh nature, so that I knew that no bees had been at work upon them the day before, while such examination was made early in the morning before the bees were out. This, of course, cleared the bees from doing aught but sucking the juice from the fruit, so that instead of being the cause, they came in as an effect.

But an examination of the Lady, Agawam and Salem, at first appeared to convict the bees; for on examination these tougher skinned varieties showed a triangular piece of skin of about 3-32 of an inch on each side torn right out of the side of hundreds of perfectly sound grapes. Through these holes the bees were putting their tongues and sucking or lapping up the sweet juices, for all of these grapes are very sweet. I carefully watched the grapes in the morning to see if any appeared freshly cut, as if it was done during the night, but none was so found, and at this time there was nothing on the grapes except a few squash bugs or stink bugs, while a long time watching of these convinced me they were not the cause of the holes.

I next watched the bees, feeling almost sure that they did really bite open the grapes, but after watching a long time I failed to see one make any attempt at aught save sucking through holes already made. In fact I soon became convinced that they were not the cause, for where several were collected about one of these torn places, so that no more could get at them, others tried to push in, and failing, would run frantically about in search of some other opening, when to cut a hole through would have been but a short job, if such had been the object. Thus they would continue to run around over different grapes till a torn place was found not fully occupied.

So far I had watched in the forenoon, when the bees first came on the grapes, or had been on but an hour or two, thinking that if the torn places were the work of the bees, they would be more apt to commit their depredations at this time of the day. Finally I thought to watch about 2 o'clock, and later, when on almost the first bunch I looked at was a *wasp*, such as build paper nests about our houses wherever a secluded place affords shelter. Upon looking further I saw many of them, and a few moments watch gave me the privilege of seeing a grape torn open; for what purpose I could not tell, unless for mischief, for I failed to see any wasp act as if sucking the juice of the grape. They seemed to work upon the piece of torn skin for awhile, and then leave that grape and tear open another. If a bee came near, the wasp would put out a foot or bring out a wing and drive it away, so that no bee could get at a freshly-made hole until the wasp had left.

These wasps I have often seen about the entrances of the hives on warm October afternoons, where they will sit and keep the bees away from them, unless perchance several bees attack them, when they will quietly withdraw a little way and parry with a single bee, not stirring an inch for it. I never knew that they did any harm before, save to annoy the housekeeper when they had their nests behind the window blinds, or in some such place, when they would sting if disturbed. But now I know they are a most prolific source of loss to our ripening grape crop, and to the defamation of our bees. These wasps and the cracking of the grapes has resulted in the loss of at least one-half of my grape crop. However, I am glad to know that the bees have no part in *causing* the trouble.

There is an item wherein the bees give offense, and that is in gathering the crop. If done when they are on the grapes, care must be used or the gatherer will get stung; for at this season of the year the bees are very sluggish, and will sting on the least provocation by way of squeezing. Again, they will crawl down into the baskets or boxes so that many will be carried to the store-room to be an annoyance there. Of course a bee-keeper will overlook all of this for the sake of the bees, but such care and annoyance is anything but pleasant to a person who is not a bee-keeper, or especially to a timid person.

Borodino, ⊙ N. Y.

For the American Bee Journal.

Working for Extracted Honey.

M. A. GILL.

While reading Mr. J. J. Waller's artile on page 216, I find his management so different from my own that I concluded to give a brief of how I manage extracting. His first objection is to robber bees, while taking combs away. I am never bothered in this way, and in out-apiaries where I have moved for basswood, I frequently extract in the open air, and on two occasions I have seen the bail break and spill a pail of honey in the apiary, and it was not visited by a single bee. Of course this was in the height of the basswood yield.

Mr. W. mentions "stooping" as an objection. Well, it is, but he would need about two men to help him "straighten" if he carried some of my colonies into his honey-house. Remember I allow no increase when working for extracted honey, and have my hives tiered from three to four stories high; and I have had them on the scales when they would weigh from 180 pounds to 225 pounds. You will see the straightening up with them would be harder than stooping. I can imagine what kind of a muss I would have, should I take one of those colonies into the honey-house. Think of from 16 to 20 pounds of bees turned loose thus; of course a large per cent. would be young bees, that could not get home in any way except on "foot with a guide." These young bees do not know enough to fly to the window, and could not if they did. The little, soft things only know enough to feed a young larva, or crawl into a person's ear.

Another reason why I could not afford to do as he says, is, the bees would lose too much time. Our main crop is gathered in from 9 to 14 days, and when the bees are bringing in from 5 to 30 pounds per day, they should be kept at work, and by using little or no smoke, their work goes on with but very little interruption. By tiering up and keeping one or two frames with "starters only," in the lower story, bees can be kept from swarming. About two weeks before basswood blossoms, I examine my bees, and take the queens away, forming a good nucleus colony. By doing this three important points are gained—one which concerns the nucleus, and two concerns the main colony.

It will be seen that in two weeks after (at the beginning of basswood), the nucleus will have a working-force of its own, and will work wonders in the next two weeks. Next, if the work of cutting out queen-cells has been thoroughly done, swarming is up for the old colony; and last, but not least, they have no brood that is of any value to them; that is, their brood is all sealed up, and who has not noticed what a colony of nearly all *old* bees, with no brood, plenty of empty combs, and a *large* entrance, can do in the way of storing honey?

To return to the matter of extracting: Where hives are 3 stories high, there will be two sets of combs to take off. By having a box with a cover, handles and legs, two men will take them to the honey-house and extract them with as little stooping as if the hive was taken. I imagine that what would do in my location would not be advisable in Mr. Waller's. I suppose his yield is slow, and lasts for months, while ours comes in floods, usually about 10 days of white clover, and about the same of basswood, with less honey but a longer flow from buckwheat and goldenrod.

Where bees have been in 3 and 4 stories through the basswood flow, they should all be removed but one super, as soon as the yield is over, and, in fact, worked into the brood-chamber as early in the fall as possible. The big colony is gone; the three weeks used in rearing a queen, and the three weeks before her brood hatches, together with the fearful mortality incident upon a large honey-flow, makes the difference.

Star, Wis.

For the American Bee Journal.

Do Bees Really Hear?

ELIAS FOX.

In regard to Mr. Brimmer's article on page 240, I would say that I am as much of a lover of the truth as any one. I do not wish to be understood as saying that bees *cannot* hear, but I do not *think* they can; and so far I do not think that Mr. B. has furnished any proof to the affirmative. I did not say that bees are wholly guided by the sense of sight, but by sight and scent both. Now I *do* claim that the sound is produced *wholly* by the wings, whether they are in a person's hair or under his coat collar. A bee in the act of stinging moves its wings with lightning rapidity, which we all know they cannot do without emitting a buzzing sound, and at the same time we can smell the formic acid which attracts other bees. We cannot hold a bee in our fingers tight enough to prevent its wings from moving, unless the bee is crushed.

I do not claim that a colony going to the woods can see the tree from the time they leave the hive, but I think they start out and go into the first suitable tree they find. If they do not, why is it that they are frequently found clustered on trees and bushes, after going miles in search of a suitable tree, some even traveling until with dwindling and storms they are worn out and never find a place to get into? Several years ago I found a colony clustered in the top of a tree at 7 o'clock in the morning, and they remained there until 3 p.m., when I cut the tree down, hived them, and took them home. I know a man who, two years ago, found a colony clustered on the underside of a limb of a small basswood tree, and had comb enough to fill an American hive. So it looks plain enough to me that they do *not* know where they are going to locate; and I do not think they carry flags of truce either. I do not believe that Mr. B. has reared a sheep, or he would not say that a flock is attracted by the bleating of the leader.

I would advise Mr. B. to try running ahead of an absconding colony without his milk-bell, and see if he does not succeed just as well. I have noticed young and old queens piping on the comb, and I am *just* as positive that it is their wings which causes the sound; for if you are a close observer, you can see their wings move in accordance with the sound. Let a bee alight on the hand, and set up a buzzing, such as they do at the entrance of the hive, and if you cannot feel the vibration I will admit outright that bees can hear. They scent a virgin queen as readily as a fertile one. Now let us not have so much guess-work, but if bees can hear, let us have some good, solid proof, as I am open to conversion.

Hillsborough, Wis.

For the American Bee Journal.

Storing Surplus Honey, etc.

G. W. DEMAREE.

The enthusiasm of the old class of bee-keepers found vent in swarms; but since we have learned how to breed and multiply our "live stock" at will, the direction of the outlet has turned in the opposite direction. We now want to know how to keep increase in proper bounds. A few years ago we were advised to work our apiaries on the "prime swarm" plan, *i. e.*, just take one good (first) swarm from each colony; but we asked, "where is this thing to end?" We were told to sell our surplus bees, and we asked, "where or to whom, if every bee-keeper must double his stock every year?" I could find no solution to this problem except to let the overplus of colonies consume two or three dollars worth of honey, and starve at last, or be over-run with more "live stock" than was profitable to keep.

This perplexing quandary set me to experimenting to find a plan that would turn the energy of the "prime swarms" into surplus honey, and turn the swarms into mere nuclei and into non-existence, if desirable, at the close of the season. To accomplish this the necessary manipulations may be varied considerably. The gist of the plan is to draw from the parent colony after casting the first swarm so many of their mature workers as will prevent after-swarms, and throw these into the hive containing the swarm; an essential feature of which is to have the swarm on the old stand, so that there will be no returning to the old or parent hive to keep up the swarming impulse. Another essential feature is, the queen's apartment in the new hive containing the swarm must be so contracted as to be in the condition of a mere nucleus brood-chamber—thus throwing nearly the whole force of workers into the surplus department. In my locality two or three weeks of time immediately after the swarm issues, must give all the results that can be expected from a swarm, and if I can get 100 pounds from a good swarm, I consider that the swarm was turned to a good account.

My plan is to so manage my bees under the swarming energy that their entire force will be spent in storing surplus honey, instead of being permitted to turn their force into increase of bees. I cannot prevent my bees from swarming, and keep the colonies in a normal condition, but I can convert the strength of the swarms into surplus honey, and the swarms themselves into non-existence by "contracting" all the honey into the surplus departments, and removing it to the honey store-room.

While practicing my system of preventing increase, I have had ample opportunity to observe how the "contracting system," first brought to light by Mr. Doolittle, and later systemized by Mr. Hutchinson, will work in my locality. Such treatment would bring my apiary to ruin in an average season, unless I should feed the colonies through the heated months of summer, and supply them with winter stores in the fall, in which case I would lose rather than gain in the operation. Some seasons the bees would survive such management because of favorable conditions, but favorable conditions are not certain here, and therefore the contracting system is unsafe, if our bees are to be kept in good condition without feeding the profits of the apiary back to the bees. Nature seems to have laid tribute on all things. Every pound of honey costs the life, energy and death of a great number of bees. Brood represents honey, and honey represents brood.

My experiments, and my practice to keep down increase, shows that to so manipulate the hive arrangements as to throw all the honey into "surplus," costs the life of the colony. Now if we feed back to counteract the loss on the side of the bees, we have gained nothing—nay, lost in the operation. Ten pounds of sealed honey in the brood department is worth more to the bees than 15 pounds of liquid honey or syrup, unless the experiment is made for stimulative purposes, and then you must account for the loss of life and vitality of the bees caused by the labor and excitement while re-storing it.

How easy it is for a man to work himself up into the conceit that he has discovered "something new under the sun," when his peculiar environment, or perhaps his ignorance of past history, or of the laws of nature, is all that is in it. This is a great country of ours, and there are many places where bees will do as well and apparently better, with mere starters in the frames, than if supplied with full sheets of foundation or with empty combs. An extra good season now and then has turned my head in that way; but when it comes to running an apiary from year to year as a business, comb foundation and empty combs cannot be dispensed with in the majority of the apiaries of the country, and their judicious use must be profitable everywhere.

Our bee-literature is in a muddled condition, and is likely to get worse since in "book making there is no end." One of the worst and most vicious tendencies in the would-be authors of the times, is to lionize somebody, or some bee-hive, or some theory, instead of writing directly to the matter in fact, as indicated by the title of the book.

Christiansburg, ♂ Ky.

For the American Bee Journal.

Bees and Fruit—Removal Desired.

Z. A. CLARK.

The following appeared in our local paper, the *Standard*, concerning my apiary:

"As some dissatisfaction has arisen in this place tending to and developing into a somewhat organized effort to have the apiary of Z. A. Clark declared a nuisance by the city authorities, and forcibly ousted from the city limits, we deem it pertinent to discuss the matter. A veritable howl has been raised against Mr. Clark's bees, and it is said on account of the fact that the little workers were attacking and actually destroying the growing fruit of the town. The idea was really a new one to us; and besides believing that the man engaged in apiculture on his own premises had rights to be respected and protected as much so as the followers of other avocations, we believed they were mistaken as to the ability of the bee to do the damage it had been charged; so investigation showed that the opinions of the citizens as based on their experience and observation in such matters, were widely divergent. But the matter we feel is fully settled by the official report to the United States Entomologist, by N. W. McLain. From it will be seen that it is impossible for bees to puncture the skin of sound, unbroken fruit. Let the enemies of the industrious bee read it."

Then follows the report as already published in the BEE JOURNAL.

No one in this immediate vicinity is cultivating fruit as a business, and from May 10 to June 3 it was extremely dry, and no rain—something very unusual in this locality—and in consequence, the bloom was all destroyed. From June 3 until July 1, it rained incessantly, and the early peaches began to ripen when a rain would come. Hot sunshine upon the fruit would cause it to break, rot and collapse, and there being no honey, nor bloom for the bees to work upon or gather honey from, and in consequence of the drouth preceding, and followed by rain every day for a month, the bees were starving, and so they took to the juice exuding from the decaying peaches. From ignorance, the populace—the "cranky" part of them—set up a veritable howl that Clark's bees were eating up all the peaches! One party even went so far as to say they ate up his young ducks. As for this I cannot vouch, as they were not brought into the apiary.

This is the only move ever heard of this kind in any town or city in Arkansas. Our town has about 1,800 inhabitants, not crowded, and bees have been kept here for 50 years.

The chronics are a minority, and last year, as soon as the flora grew, the bees left the fruit, and there was no more complaint. They want to have the bees moved this year before fruit ripens. I do not know what steps to take. I have no other land in this county but what my bees are on, and I have no money to buy any, and want to make a living, if I am allowed to, from my bees.

Arkadelphia, ♀ Ark.

[The Manager of the Bee-Keepers' Union, by request, has advised Mr. Clark as to what course to pursue. The false accusations against the bees, about their breaking the skin of grapes, when thus refuted, will be advantageous to the apiarist. All he needs is to treat the subject with calmness, be courteous to his adversaries, and await the *reaction* which will surely come in due time.—ED.]

For the American Bee Journal.

The Prevention of Swarming.

OTIS N. BALDWIN.

This topic seems to be agitating the minds of the wide-awake apiarists of to-day, and well it might; considering the close competition and prevailing low prices of honey it behooves us to make every "corner cut" in producing the most honey with the least labor and capital expended. It is unnecessary to state that the quality must be gilt-edge to compete now-a-days, for every live apiarist has discovered that ere this. But to the point:

It is a fact beyond dispute that if the bees of a colony can be kept together with all its increase, and made to work in the sections from the *commencement* of the harvest, and produce an impulse for gathering honey equal to a swarm just hived, without destroying any of the fundamental rules necessary to produce harmony in the hive, more honey can be obtained by such a non-swarming plan than is possible to obtain by letting the bees increase naturally. But some will say that such a thing is impossible; that the greatest entomologist, and the most learned apiarists in the world have not discovered it, and therefore it is impossible; and should a common bee-keeper proclaim that he could accomplish it, he would be at once put down as a fraud, trying to swindle the fraternity out of a few dollars.

In this day of frauds and humbugs, we cannot be too careful. While this is all true, we should not cry down a thing that might be worthy an investigation, without knowing something of the footing upon which we stand. I have read Mr. Gresh's article on page 167, and I am inclined to think that he will still look in vain for the desired method. He states, too, that he is glad that Mr. Simmins has given his non-swarming method to the public, etc. If I am rightly informed, Mr. Simmins did not *give* his method to anybody; he published a pamphlet on the subject, and it is for sale. Let some man ask Mr. Gresh to *give* him a hundred pounds of honey; would not Mr. Gresh be a little non-plussed? Would he not say, "my honey is my labor, and must bring the cash." Then he would cast a smile at the stranger, as much as to say, "you are awful green!" It is just the same with a non-swarming plan that is genuine; it costs money, and takes labor to experiment, and the man that discovers such a plan as is mentioned above, will not give his time, labor and money for unappreciated glory.

Many bee-keepers, too, want increase in their apiaries, and think that a non-swarming plan prevents increase. This is just exactly as the bee-keeper wants it. He can have all the increase he wants, or none, and can always have his bees in good condition, which is impossible where swarming and contraction is practiced. I have tried the contraction method to my sorrow, and consider it the most impractical plan in apiculture. It is unnatural, and ruination to an apiary for at least a year thereafter. Any plan of manipulation that is calculated to violate the God-given laws of nature in handling bees, will prove a failure every time. Let the bees follow their own instincts, arrange the hives accordingly, and you have the non-swarming plan described above; and I will insure your bees not to cast 4 swarms in 100 colonies, in a normal condition, and get every pound of honey in the surplus departments, if you want it so. It does away with two-thirds of the labor, and makes happy bee-keepers.

A hundred years ago railroads, telegraphing, telephones, and thousands of other wonderful inventions were unknown, and if any man could then have looked into the future and revealed the wonderful things that have transpired, he would have been looked upon as in conspiracy with the evil one. In all the literature on bee-culture of the present day, there is not a single process recorded where artificial fertilization of queen-bees has been made a success, and most of the authors claim it is an impossibility to produce fertile queens in confinement.

I have queens that were hatched in cages, and their wings were clipped before they ever had the possibility of a chance for a flight. They were operated according to a plan of nature's own laws; they are as prolific layers as any other queens in my apiary of 75 colonies, and they did not go through the absurd, scientific monstrosity mentioned on page 65 of "A B C of Bee-Culture." It is my opinion that all bee-keepers who claim to have ever observed such wonderful nonsense, were laboring under a delusion, or looking through the wrong end of the microscope.

Practical bee-keepers are testing the methods, reports of which will appear in due time. Any plan of operation that is a success will work in one apiary as well as another, if the normal conditions are properly observed. A man that has passed his opinion beforehand is unfit for a juryman; the same rule holds good in apiculture. It is the investigator that takes the lead, and reaches the *ultimatum* of success.

New England Homestead.

Securing Apple-Blossom Honey.

SAMUEL CUSHMAN.

Under the usual management, surplus honey is rarely taken from this source. Bee-books generally teach that apple honey is dark, inferior in flavor, and is of use only in building up colonies. A prominent New York bee-keeper once said: "We could get as much honey from apple-blossom as from basswood, if we had the workers at that time to gather it. But with plenty of bees, a failure of the yield, or cold and rainy weather, will prevent success, as many have found."

In southern New England, honey from this source is often obtained in large quantities in the brood-chamber without special management. A Massachusetts apiarist had one colony gather "72 pounds of surplus honey in four days from apple-bloom."

Last season I acted on the above suggestion, and by special management obtained a nice lot of apple honey in pound sections. It was the thickest and finest flavored honey I ever tasted, and when gathered and capped quickly, it was nearly equal in appearance to the best white clover honey. It was not quite so white, but was bright and clear, and the apple-blossom flavor was very distinct. This honey was exhibited at the Rhode Island State Fair, received the first prize, and was sold to a dealer at a better price than is given for white clover. The judges and bee-keepers generally who tasted it, pronounced it equal or superior to anything they had ever eaten.

My management to obtain this honey in sections was as follows: Early in the spring I fed warm syrup, artificial pollen and uncapped stores, and added empty combs, etc., to get a force of workers in time for the bloom, which I expected about May 20, but which opened on May 10, as the season was early. Just before the height of the bloom, I filled out the brood-chambers of several colonies with capped brood from weaker ones, leaving only combs of capped brood, and also united a few colonies where two stood side by side. One was removed; the other placed between where each stood. Nearly all the bees from the removed colony were brushed in front of the remaining one. The one removed had the queen, combs of honey and uncapped brood, and enough bees to cover the brood, and were in a condition to build up. They were placed on a new stand. The prepared colonies had combs full of capped brood, an extra lot of young and field bees, and were obliged to occupy supers for want of room, and had no other place to store honey. The surplus cases contained rows of sections of empty comb, alternating with those having full sheets of foundation.

The result was from 20 to 30 nicely capped sections per hive. This was nearly all gathered in three days. One colony furnished 32 sections of honey and did not swarm. Without this apple honey I should have had little choice comb honey last season, as clover was a failure, and there was little fall honey. Under this management, honey is produced at a greater cost of bee-power than that from clover or a later crop, and therefore must bring more to be profitable. This is but the experience of one season in taking honey from this source; it may vary in quality in different seasons. Those who try this plan and succeed will, I think, be well repaid by the quality of the product, but I would suggest that it may be safer to work but 1 or 2 colonies in this way.

Pawtucket, R. I.

For the American Bee Journal.

The Honey-Producers' Association.

W. Z. HUTCHINSON.

Not many years ago bee-keeping was a bonanza, in one respect, at least; and that was in the selling of its products. The pursuit is a fascinating one; its beauties have been painted in the brightest colors; its ranks have been filled to repletion; and the active minds of its bright devotees have all been brought to bear upon one focus—*production*.

The bonanza is a bonanza no more; the beautiful, pastoral pursuit has been forced down to a business level—yea, below the business level of some occupations. In overcoming the difficulties of production it seems as though success had ended in *over-production*. The wigglings, twistings, and frantic attempts of the "boomers" to attribute the low price of honey to something, *anything*, than over-production, are really pitiful in their ludicrous inconsistency. It must be admitted that the demand has not kept pace with the production. Once the honey-buyers sought the honey, now the honey must seek them; and it is a tedious task to find them, as the commission man has sprung up and the cash buyer faded away. The commission merchant has been terribly abused of late; and, mingled with the abuse, it is quite likely there were some unpleasant truths. Personally, however, I have nothing but praise for this class of men.

Bee-keepers are not the only class, however, that has suffered from over-production. Many strawberries were sold last season for scarcely enough to pay for picking, transportation and commission. Last September I attended a meeting of the American Horticultural Society, held at Cleveland, Ohio. The president of the society, Parker Earle, the "strawberry king" of Illinois, in his annual address, went straight to the heart of this problem. He said:

"Many as are the enemies to conquer in every line of horticultural effort—and sometimes it seems as if all the forces of nature were combining against our success, when insects deface, and blights wither, and drouths burn, and frosts destroy—yet the ingenuity, the energy, the enthusiasm of the horticultural producer are found sufficient in most cases to overcome all obstacles so far as to provide enough, and too much. In fact, the difficulties of production have been so far overcome that most branches of the business *seem* to be suffering from over-production.

"Looking at this question from the stand-point of a commercial grower of fruits, it appears to me that one of the chief problems for our fraternity to solve is, how to distribute our products more perfectly—how to reach wider markets....There is as yet no over-production of good fruits; but there is defective distribution. There were not too many apples grown in New York, Michigan and Missouri last year, although apples sold in many of our large markets for prices far below the possibilities of profit; but our system of distribution left half of the families in America with few or no apples to eat last winter. When one or more barrels of apples go into each farm-house and laborer's cottage all over the South; to each miner's cabin among the mountains, and to all the new homes building on the wide plains of the West, the supply of apples will not be found too large. There have not been too many oranges grown in Florida and California for the last few years, though many orange-growers have gotten little profits from their crops; for three-quarters of the people within a practicable commercial distance of these orange-orchards have eaten scarcely any oranges in these years. If all the American people were to eat apples and oranges daily in their season, the quantity produced would not supply their wants. A more thorough system of distribution will render this approximately possible....

"Hence it appears to me that we are not producing too much, but are marketing too poorly, and that the question of distribution is the one most important to the commercial grower. Its successful solution will result in infinite benefits to the people who consume, and in living profits to the often-discouraged class who produce."

I think that Mr. Earle has most clearly covered the ground upon which lie the troubles of the *honey-producer;* but exactly how to wipe away these troubles—to place a barrel of apples (or a crate of honey) in "each miner's cabin among the mountains"—he left unsaid, except that we are to market better and distribute more widely. Excellent advice, but *how?* It is to wrestle with this question that would be the legitimate work of a honey-producers' association.

I very much doubt if any association of honey-producers will ever be successful in getting up a "corner" on honey. Very many producers would not join the association, and while the members were "cornering" the honey, holding it and fixing prices, the outsiders would be selling *their* honey. There are too many bee-keepers; too many varying circumstances; it will be impossible to combine them and secure uniformity of action. While I have no faith in the "cornering" scheme, I do not belong to the class that says that nothing can be done.

The production part of the bee-keeping industry has been studied now for years. With rare exceptions it has been the only theme in bee-papers and at bee-conventions. It is almost impossible to say anything new upon this branch of the business; in fact, until lately it was scarcely necessary to touch upon any other department. The time has now come, however, when to produce a good crop of honey is *one* thing, to sell it to advantage is entirely another. To cheapen production may possibly help us, but the other end of the problem—that of securing good prices for honey—will bear the most working. The problem can be solved much more quickly by beginning at this end. A few have tried working at this "end." Mr. Muth has called the attention of bakers, packers of pork and pickles, and tobacco manufacturers, to the using of honey in their business; Mr. Bingham has told us how to make the best of vinegar from honey; Arthur Todd uses honey in making candies; Mr. Newman and others have furnished us thousands of leaflets for distribution; J. H. Martin has just brought out a new and peculiar small package for extracted honey; our Canadian brothers went over to England last summer and showed our cousins across the "big pond" the superiority of American honey; tasteful exhibits of honey have been shown at Fairs, etc., but more, *much* more must be done in this line, or else a radical change made in the methods of marketing, ere the palmy days of old will return even in a measure.

I think we owe Mr. Baldridge a vote of thanks for having started a discussion upon this subject. Much good has been done; and while I think that a meeting devoted to a discussion of this subject would work to the advantage of bee-keepers, I doubt the wisdom of calling such a meeting this spring. Reform movements and changes come about slowly. Many bee-keepers seem to have rather vague ideas in regard to what will be or can be done at such a meeting; they will wait and *see* what is *done.* We can get no reduced rates, and this, combined with the apparent lack of enthusiasm, would, I believe, result in a very slim attendance. Very few bee-keepers would spend any great sum of money just now to attend a meeting that is to discuss only this one topic, broad and all-important though it be. I think that Mr. Newman's suggestion, on page 227, is a good one, viz: to defer holding a convention until the meeting of the North American Bee-Keepers' Society, next fall, in Chicago. As Secretary of this society I would suggest that at least one day, and the best day at that, be devoted at the next meeting to a discussion of this vital topic.

This meeting will probably be a "rouser;" composed of representative men; and the cost of production, prices at which honey can be sold at a profit, methods of putting up honey, commission men, cash buyers, home markets, city markets, foreign markets, development of markets, distribution of our products, associations, "corners," etc., can all receive such a discussion as they never before have received.

In my opinion this is a live question—it is *the* problem that now confronts bee-keepers; let us study it well the coming season, then meet in Chicago next fall and see if associations will help us to solve it.

Rogersville, 6 Mich.

For the American Bee Journal.

Our Honey Crop for 1886.

C. W. DAYTON.

The honey crop of Chickasaw county, Iowa, for 1886, was close to 100,000 pounds. A good many thousand pounds was shipped to distant markets, and mostly remains unsold; nearly as much was brought from other States and sold here.

The general complaint, or "howl," rather, is that there was not half enough honey produced to supply the home demand. The honey-producers of the county are located usually 2 or 3 in a place near some town. The inhabitants in and near those apiarists obtained enough for their bread and cakes during the fall, but when winter came the honey was "played out." From 6 to 8 months in the year the consumers of honey in this county are forced to abstain from its use. If all the families in the county could use, and knew where to get what honey they would be glad to pay cash for, it would be equal to 1,300,000 pounds, and we cannot boast of a very populous or wealthy county either. There is a great demand for it at present; but the demand will be supplied when we get another crop.

Some bee-keepers have a greater demand for honey than others. It may be that it is because those bee-keepers usually leave it on the hives the longest—so long that their customers get very hungry for it. Then they let them have it all at one dose. I do not think the bee-keepers around here are very sharp. When they are nearly sold out, so there is not much on hand, they always cling to the same price. Where honey is scarce they ought to do as other folks do: ask a big price. Honey always gets lower and lower, but the price does not fluctuate around here. If the price would change, then a customer would not be so likely to question the price and buy somewhere else. As it is, once posted, he is fitted for life.

I always find good sale for comb honey in sections where there is some bee-bread in them. That is when I am selling to private houses, but it does not work very well with the merchants, as they expect to get it for 2 or 3 cents per pound less on that account. Sometimes, where people are used to adulterated or poor honey, it would be hard work to sell if it was not in boxes or frames that showed the roughest work of the bees. It is not always the appearance of honey that makes it sell, any more than the dealers are the best customers. I once sold 14 two-pound sections of excellent comb honey to a man who dumped them hilter-skilter into a grain sack which was thrown across his horse's back, and carried 8 miles home.

I do not sell honey to those who do not want it, but sell to those who do want it. A good place is to keep some honey in the combs till spring, then extract it and give the neighbors a taste. Do not try to sell them any. They will buy it of you sooner than you could possibly sell it to them. The greatest fault in bee-keeping in this county is that we cannot get enough honey to meet the demand. We cannot get enough to feed one-tenth of those who would like it.

Bradford, 6 Iowa.

From Gleanings.

Disposing of our Honey Crop.

MRS. L. HARRISON.

There is no subject that comes nearer to us all than the best way and means of disposing of our honey. If a bee-keeper ships his honey to a large city, and sits down to smoke, he will, in many instances, have time for a pretty long smoke before he has any returns for his season's labor.

There are few localities where there are not more than 100 colonies kept, which would not be able to consume all the product. I once stopped at a farm-house, five miles from any town, where 40 colonies were worked for extracted honey. The proprietor said: "I never take away a pound of honey; the neighbors come with their jars and pails, and take it away, and I could sell much more if I had it. I cannot half supply the demand."

Farmers formerly, in Illinois, consumed large quantities of molasses. They bought it by the barrel or in kegs. Emigrants from Pennsylvania missed their fruit-butters, for which they are so famous, and the large family of "spreads" scoured through the woods in search of wild plums, grapes and berries, and finally succumed to the inevitable, and ate molasses. Since the advent of glucose-factories, molasses and syrups have "gone by the board." Fruit is more abundant than in the early settlement of the country, but it does not entirely fill the gap. This class of consumers are almost entirely neglected by producers. They think honey is something to be sold to town-folks. How one of our Western farmers would laugh if you should ask him to buy a pound of honey! "A pound of honey? Why, that wouldn't be a lap. Bring me 50 or 100 pounds." He has no use for a 10-cent package.

Those who farm here have large families; if not many children, they have work-hands, comers and goers, and there are few days when strangers do not sit down to their tables—agents, peddlers, etc. What a bonanza would honey be to the over-worked wife! It needs no cooking; she does not have to stand for hours, either, over a hot stove or by a fire out-of-doors, with smoke or ashes in her eyes, moving a stirrer back and forth all day, and at night till the clock strikes the "little hours," to finish it off as it boils and sputters. This class needs instructing in the use of honey, and they could be easily taught, if it were only brought to their notice.

We never shipped any honey more than once, and that was owing to the severe illness of Mr. Harrison; and if we had employed the young man who packed and shipped it, to have peddled it out, we should have saved money and worry, as he had been in the peddling business. During the winter, in most localities, there are plenty of young men out of employment, well fitted, with a little instruction, to sell honey. It would be better to trust them with our property than to ship it to entire strangers.

I am not ashamed of the business, but proud of it—glad that I am a producer of a pure sweet. In peddling honey, the better way when it is sold from house to house, would be to go forth as the apostles did, "by twos." One could drive the team, and abide by the stuff, while the other could exhibit the honey and solicit orders. The best assistant would be one who has been over the ground before. A honey-route, in time, would have a commercial value the same as milk-routes now have. A family that uses honey at all buys a good deal, while there are others who cannot be induced to use it; and in going over the ground the second time these could be left out.

Large producers must, of course, seek distant markets; but "it is the little foxes that spoil the vines." Small producers must sell their own honey at home, if they would succeed; make honey legal tender for everything they buy.

Peoria,⊙ Ills.

[About selling honey on commission, Mrs. Harrison is quite right in saying that it is vexatious and very unsatisfactory. A case in point occurred in Chicago this month. A small lot of the best white clover honey ever produced was put into the hands of a commission merchant as a trial lot, to ascertain whether it would be advisable to let him have 50 tons more to sell. The commission merchant made returns at 5 cents per pound, less commissioner's expenses, etc. As it will not do to sell at such ruinous rates, the rest of the crop will be "held" from the commission men.—Ed.]

Local Convention Directory.

1887. Time and place of Meeting.

May 5.—Progressive, at Bedford, Ohio.
Miss Dema Bennett, Sec., Bedford, O.

May 10.—Keystone, at Scranton, Pa.
Arthur A. Davis, Sec., Clark's Green, Pa.

May 10.—Cortland Union, at Cortland, N. Y.
D. F. Shattuck, Sec., Homer, N. Y.

May 13.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 26.—West Lake Shore Central, at Kiel, Wis.
Ferd Zastrow, Sec., Millhome, Wis.

Dec. —.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Expecting a Good Harvest.—Geo. W. Moore, Golden City,♀ Mo., on April 22, 1887, says:

Bees have wintered finely. I had packed 10 colonies on the summer stands in the Langstroth hives; on Feb. 7, they had brood hatching; on March 10 they gathered pollen and honey from elm and maple. Fruit bloom is almost gone. It has been so windy that the bees have not had a chance to do much in the way of gathering honey. They are very strong in numbers. I look for a good honey harvest this year.

An Apiary Roughly Handled.—Jno. C. Peden, Lawrenceburg,⊙ Ky., on April 20, 1887, writes:

For 5 years I have had from 15 to 20 colonies of bees near the Kentucky river, between 2 and 3 miles from home. During that time they have been protected from harm by being near the house of Wm. Skelton, who had charge of the landing and elevator there; but last February he moved away, and that left my bees without protection, except in the daytime. On Tuesday, April 12, I made arrangements to remove them, but on that night some evil-disposed person turned them all (24 hives, 19 containing bees) down the river bank where it sloped toward the river at an angle of 45°, was very rough and rocky. I heard of it early the next morning, and went to them, and by noon I had most of the bees back in the hives. Upon examination I find 13 queens left, which seems almost impossible, considering that many of the hives rolled for 50 to 75 feet down the bank. The surplus combs were stored in the upper stories of the hives, making nearly 500 combs in all. These, along with the bees, brood, combs, stores and hives were scattered in the utmost confusion, and that 13 queens were yet alive is much better than I expected.

Encouraging Outlook.—Ira Barber, DeKalb Junction,♂ N. Y., on April 22, 1887, writes:

So far as I have learned, bees were put into winter quarters in poor condition, as a rule, in northern New York, and the result is a heavy loss to many bee-keepers. I carried the last of mine out to-day, and all occupy their old stands but 3 out of 147 colonies carried in last November. About 80 per cent. of them are in good condition for business. Clover has wintered fairly well, and the outlook for a crop of honey is favorable.

Long Winter Confinement of Bees.—G. M. Doolittle, Borodino,⊙ N. Y., on April 21, 1887, writes:

The first pollen was brought in by the bees to-day, and that in very small pellets from skunk-cabbage. The old snow-banks are still 3 feet deep in places in my bee-yard, with freezing nights nearly all the while, which does not tend to diminish them very fast. As near as I can get at it, the date of the first pollen was never so late as April 21 before in all my 18 years' experience with bees. Bees wintered out-doors had their first flight on April 3, which was just 5 months from the time they flew last fall. My loss is 10 per cent. of this class. Those in the cellar are quiet and nice yet, and I am glad of it, for it looks as if they are to be confined 6 months—180 days. Who beats that?

Sowing for Bee-Pasturage.—James Jardine, Ashland,⊶ Nebr., on April 22, 1887, writes:

In this part of the State we have had rather a hard winter for bees that were out-of-doors. Many bee-keepers have lost almost all the bees they had. I put 101 colonies into a bee-cellar on Nov. 15, 1886, and took 101 colonies out on April 2, 1887. I kept the temperature at about 40° to 50° the most of the time. My hives are all 8-frame Langstroth; I gave them plenty of ventilation, and have been very successful so far with cellar-wintering. My bees are doing nicely now, and are breeding very fast. I hope we will have a better year for honey than last year. It was then too dry for them in this part of the State. I have induced many farmers here to sow Alsike clover this spring, and I think if I had had plenty of the "Alsike Clover Leaflets" to show, I could have been still more successful; but the Leaflets were issued too late for me. I am trying the Chapman honey-plant this year; also the white mustard, which will be ready for the bees in June; and sweet clover. I mean to keep sowing bee-plants until my bees can have something else than the heart's-ease to get honey from. The basswood last year yielded honey pretty well for a few days, but when it came there was plenty of bees starving. Now I hope that the Alsike clover that has been sown this spring will furnish lots of honey in June next year. My apiary is out of town a little ways, and the bees were killed in the store windows, in June, by the thousands every day, and a good many store men were getting sick of their company. The only way "to keep peace in the family," is to do just as I have been doing this spring.

Breeding up Nicely.—B. W. Peck, Richmond Centre,δ O., on April 22, 1887, says:

My bees have again come through the long, cold winter, and are breeding up nicely. Bees in this locality generally have not wintered as well as they did last winter. My loss was 3 colonies out of 38.

Bees in Prime Condition, etc.—F. M. Taintor, Coleraine,+○ Mass., on April 25, 1887, writes:

I am happy to say that our bees (those of Mr. W. W. Cary and mine, as we are in company) have wintered extremely well. We think we have some of the largest colonies we ever wintered. Every colony that was out in chaff hives are in prime condition. The spring is quite backward here, but we hope for warmer weather soon, as we have considerable transferring, and other important work to do. The valuable old AMERICAN BEE JOURNAL is worth more to me than all the rest, for the good common-sense which it contains.

Terrible Mortality among Bees—Late Snow Storms.—Geo. A. Wright, Glenwood,δ Pa., on April 20, 1887, writes:

It seems to be the impression that bees have wintered well all over the country, which I think can hardly be the case. In this locality, at least, the mortality among bees has been terrible, and for bee-keepers to report only the bright side, and leave the dark side untold, is to give the business a false coloring, which will surely opperate against us. As far as I am concerned, I want the public to know how I have succeeded in wintering my bees. I began the winter with 106 colonies, 57 in chaff hives and 49 in Simplicity hives. Out of the 106 colonies 56 are dead, 6 are queenless, and more than 40 are weak. They all had plenty of stores, and were well packed with chaff; in fact, I put them up with greater care than ever before; but, alas! I do not think that 20 per cent. of the bees in this locality can possibly survive. We have had a few warm days, and bees began to breed very fast; but day before yesterday we had one of the worst snow-storms of the season, and last night the mercury lowered to 10° above zero. So that I think the brood must surely have been chilled. Many small bee-keepers have lost all of their bees, and in every case where bees were not thoroughly packed, they are all dead. This has been the hardest winter on bees in this locality since the winter of 1880-81. The clover has not been injured by frost, as it has been protected by the snow; so what few bees are left will stand an excellent chance to get a good harvest. I want to hear from the dark as well as the bright side of bee-keeping.

Bloom Frozen.—Mr. Eugene Secor, Forest City,δ Iowa, on April 26, 1887, writes:

The weather is bad for unprotected bees outside. The fine weather of a couple weeks ago, which brought out the soft maples and all early blossoms, received a sudden backset last Saturday. One of the worst snow-storms of the season reached us. I finished taking bees out of the cellar on April 19. They came out in good condition generally, but I fear the effects of the late cold weather. If they were inside I should feel glad. I hear of heavy losses in some localities; and we are not "out of the woods" yet, since all the pollen and honey-bearing plants in bloom are frozen.

Unfavorable Weather for Bees.—F. A. Snell, Milledgeville,⊸ Ills., on April 26, 1887, writes:

The weather being very fine, and soft maples in bloom, I removed my bees from the cellar on April 7, in good condition. Every colony was alive and strong, and the combs were bright and free from mold. The hives and combs were as dry, apparently, as they would have been in the sitting-room or kitchen. I placed them in the cellar on Nov. 23, 1886. I have wintered my bees on natural stores for years, with excellent results; in fact just as good or better than on granulated sugar syrup, which I gave a good trial 15 years ago. The weather for the last two weeks has been very unfavorable for bees. It has frozen for the last few nights quite hard, ice forming as thick as window glass. I prefer a late opening of spring for bees.

Great Mortality of Queens.—O. B. Barrows, Marshalltown,⊙ Iowa, on April 22, 1887, writes:

On May 1, 1886, I had 54 colonies of bees—50 were strong and 4 were weak. I increased them by natural swarming to 98, gave away 2 colonies, and found 2 queenless in October. I put 94 into the cellar from Nov. 12 to Nov. 16, 1886, and a slow fire was kept constantly burning in the cellar from Nov. 22 to April 1. The bees were put out from April 6 to April 8, and I found 2 queenless colonies and the bees all dead; since that I have found 9 more queenless, making 13 queenless colonies out of 96 colonies, since Oct. 1, 1886, and more than half of them were the old colonies having queens reared in 1886. The hives were all dry, with no moldy combs, and had plenty of honey. Was not this an unusual mortality among queens? If so, from the above data, wherein did I err? Two or three thicknesses of burlap over the brood-chamber was all the cover they had.

[I cannot account for your unusual loss of queens on grounds other than old age, or too high a temperature in your cellar, and the degree you did not state. When the temperature is kept too high, both workers and queens ofttimes leave the hive and never return.—JAMES HEDDON.]

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—
BEESWAX,—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is improving.
BEESWAX.—23c.
Apr. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4@4¾ cts. Comb, white, 7@13c. Market firm.
BEESWAX.—Scarce at 19@22c.
Apr. 4. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.
BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.
BEESWAX.—Firm at 21c. for prime.
Apr. 21. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@9c. Extracted, white, 4½@5c.; light amber, 3¾@4¼c. Market quiet.
BEESWAX.—19@22c.
Apr. 16. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.
BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.
BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Apr. 21. C. F. MUTH & SON, Freeman & Central Av

MILWAUKEE.

HONEY.—We quote choice 1-lb. sections at 11@12c.; 2-lbs., 10@11c. No call for dark. White extracted, in barrels and kegs, 6@6½c.; in small packages, 6½@7c.; dark, in barrels and kegs, 4@5c.—Demand good.
BEESWAX.—25c.
Mar. 28. A. V. BISHOP, 142 W. Water St.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
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At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Leaflet No. 2, entitled "Alsike Clover for Pasturage and Hay," is now ready for delivery. This should be scattered into every neighborhood, in order to induce farmers to plant Alsike, that the bees may have the advantage of it for pasturage. We send them by mail 50 copies for 30 cents; 100 for 50 cents; 500 for $2.25—all postpaid. It will pay bee-keepers to scatter these Leaflets, even if 9 out of 10 avail nothing. If ten farmers out of a hundred plant Alsike in any neighborhood, the bees will reap a very substantial reward.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result —a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Guide and Hand-Book	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

Fire.—As I have just had the misfortune to-day of having my residence burned, including all my books, letters and correspondence, I wish to say that I will esteem it a favor if my customers will please send me at once their addresses, including a repetition of their orders. All orders will receive prompt attention. The loss of the house, including its contents, is $4,000, and not one cent insurance! We could not save a thing out of the house, as the wind was blowing a gale. J. P. H. BROWN.
Augusta, Ga., April 29, 1887.

* * *

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

* * *

A Cheap Smoker.—"Martinsville, Ohio, April 11, 1887.—Messrs. Bingham & Hetherington, Abronia, Mich.: Enclosed find $2.50 for two Large 2½-inch Bingham Smokers (wide shield). They are for my neighbors. I have one of the Bingham Smokers that I have used six years, and it is as good as ever. Send ½-dozen rates.—Respectfully, AMOS R. GARNER." 17A4t

Advertisements.

FOR Sale or Trade.—65 Colonies of BEES, principally Italians, on nice, straight worker-comb, mostly in 2-story movable-comb hives. Price, **$275.00**, really worth **$350 00.** Call on, or immediately address, H. J. SCHROCK, Goshen, Ind.

☞ The prices quoted last week were an error of the printer.—ED.

FOR CASH.—Pure Italian Queens in May and June: 1 Untested, $1; ½ doz., $5.50; per dozen, $10. For Tested Queens, double. Guarantee safe arrival.—Address. D. E. ALDERMAN,
18A1t Clinton, Sampson Co., N. C.

QUEENS for 75 cts.

I AM ready to ship choice Italian Queens, bred from select mothers. Untested, 75 cts.; Tested, $1.50. **E. F. LOCKETT,**
18Etf COLUMBUS, MISS.

FRIENDS:—From many years' experience I find it to my interest, and to yours, to rear fine, well-developed QUEENS. I breed only Italians, and as I employ only experienced help to rear Queens, and making it a specialty *this* season, I will sell for cash till June 30, at $9 per doz.; after June, special rates per doz. Will sell Nuclei & Bees per lb. cheap in June, as my honey-flow is over then. Mention this paper, and write your address *very plainly*. You shall have my prompt and cheerful attention. This will *not* appear again. IRA D. ALDERMAN,
18A1t Taylor's Bridge, Sampson Co., N. C.

PURE ITALIAN BEES, bred ten years from imported mothers, at $5 per colony. Hybrids less. A. L. GOULD, Ridgeville, Ills.
18A3t

M. S. ROOP,
MANUFACTURER OF
APIARIAN SUPPLIES
And Dealer in **BEES** and **HONEY**.
☞ Send for my New Circular.
Corner North 6th & Mill Streets,
12Etf COUNCIL BLUFFS, IOWA.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

Auction Sale.

WE will sell at **PUBLIC AUCTION**, at residence of late owner,
JONATHAN R. LINDLEY,
GEORGETOWN, ILLS.,
under and by virtue of a chattel mortgage, about
75 COLONIES of BEES,
AND ABOUT
300 NEW HIVES,
MAY 7th, at 1 O'clock P. M.
18A1t **G. B. LEWIS & CO.**

1880. 1887.
Notes from the Bright-Band Apiary,

I **WILL** send **Pure Untested Italian** QUEENS, reared from imported mothers, to any address, at **80 cents** each; or Tested for **$1.25**. Satisfaction guaranteed. Send for terms on large numbers.
CHAS. KINGSLEY,
18A4t BENTON, LA.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS written, published, and now offers for sale, a little book upon
"THE PRODUCTION OF COMB HONEY."
Although its distinctive feature is that of teaching how to profitably dispense with full sheets of foundation in the brood-nest when hiving swarms, several other points are touched upon, and the system of comb-honey production that the author believes to be best, is briefly outlined.
☞ Price of the book, postpaid, 25 cents.
18Atf

---

100 COLONIES of Italian and Hybrid Bees for sale at bottom figures. Write for prices.
A. J. & E. HATFIELD,
12Etf SOUTH BEND, IND.

ESSAYS
ON THE
PRODUCTION OF COMB HONEY

WILL be given in the June issue of the **AMERICAN APICULTURIST**, by G. M. Doolittle, Dr. G. L. Tinker, Dr. C. C. Miller, and other prominent and well-known bee-keepers. Ready May 25. Price. 10 cts.
Address, **AMERICAN APICULTURIST,**
18A4t WENHAM, MASS.

---

100 Colonies of Italian Bees,
Strong, first-class in every respect, For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

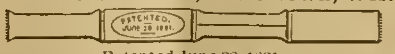
---

500 Heddon-Langstroth HIVES
—FOR SALE,—

WITH slotted honey-board, eight brood-frames, crate filled with 28 sections, all put up in good shape and painted 2 coats.

In lots of five, $1.00 each. (Price-list free on application.)
J. W. BITTENBENDER,
18Atf KNOXVILLE, IOWA.

"Boss" One-Piece Sections,
MANUFACTURED BY
J. Forncrook & Co., Watertown, Wis.


PATENTED, JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

FOUNDATION

STAPLE brand, first quality, *cannot* be excelled. Satisfaction guaranteed. My Foundation is used and endorsed by Prof. J. H. Comstock, of Cornell University, G. W. Stanley, and many others. For Brood, 6 ft. to lb., 40c. Light, 45c. Every sheet equal to sample: orders filled in rotation.
18E2t WILBER G. FISH, Ithaca, N. Y.

BOTTOM REACHED.

ITALIAN BEES in Heddon Hive	$4.00
QUEENS, Untested, 80 cts.; Tested...	1.60
NUCLEI without Queens, per Frame.	70

To Nucleus add price of Queen wanted.
☞ Remit by P. O. Money Order, to
C. WEEKS,
15A4t CLIFTON, TENN.

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published every Week, at Ten Shillings and 10d. per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. It is edited by T. W. Cowan, Esq.

The British Bee Journal and the AMERICAN BEE JOURNAL, one year, for $3.00.

BEES for SALE, Cheap.

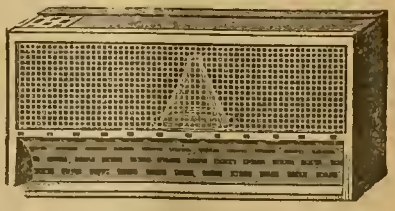
100 **Colonies** of American-reared **Italian Bees**, best strain, strong, and in 10-frame wired Simplicity hives; for sale at $8.00 per Colony. **Z. A. CLARK,**
8Etf ARKADELPHIA, ARK.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

FOR SALE.

70 **COLONIES** of Italian and Hybrid BEES—10 Colonies in 10 L. frame hives, balance on 8 American frames in Simplicity-made hives. ☞ Will sell all for **$4.00** per Colony. **J. B. KEELER,**
17A2t CARLINVILLE, ILLS.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.: 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,
THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

This Foundation runs **12 feet** to the lb.—

☞ The above is a **special offer**, and is a **Bargain** to all who can use that quantity.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad fremes, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

BEES AND QUEENS a Specialty.—Untested QUEENS, in May, $1.00. After June 1st, 75 cts. Price-List of Full Colonies, two and 3 frame Nuclei, Hives, Foundation, &c., Free.
15A7t JOHN NEBEL & SON, High Hill, Mo.

Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

1887. ITALIAN QUEENS. 1887.

6 WARRANTED QUEENS FOR $5. If you want Nice, Bright Queens, the progeny of which are good workers, and could be seen working on Red Clover at any time within the last two years, send for my Circular. **J. T. WILSON,**
1Ctf NICHOLASVILLE, KY.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Western BEE-KEEPERS' Supply House.

We manufacture Bee-Keepers' supplies of all kinds, *best quality* at *lowest prices*. Hives, Sections, Comb Foundation, Extractors, Smokers, Crates, Honey Buckets Veils, Feeders, Bee-Literature, etc., etc. Imported Italian Queens, Italian Queens, Bees by the lb., Nucleus or Colony. "Bee-Keepers' Guide, Memoranda and Illustrated Catalogue" of 48 pages FREE to Bee-Keepers. Address
JOSEPH NYSEWANDER,
DES MOINES, IOWA.

Shuck's Invertible Hives & Cases. I make L. hives of all styles. Greatly reduced prices.-806 Walnut st.
16E3t

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ The AMERICAN BEE JOURNAL for a year and the book, "Bees and Honey," will be sent for $1.75.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
8Etf NEW PHILADELPHIA, O.

My 19th Annual Price-List of Italian, Cyprian & Holy-Land Bees, Queens and Nuclei Colonies (a specialty): Also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
12-15-18 3t LIGHT STREET, Columbia Co., PA.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

DON'T BUY QUEENS,

HIVES, SECTIONS or SUPPLIES

before you send for my Catalogue and Price-List. Address,
J. P. H. BROWN,
8E6t AUGUSTA, GEORGIA.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the BRISTOL Bee-Hive, the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

PATENTED, JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

ARMSTRONG'S New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

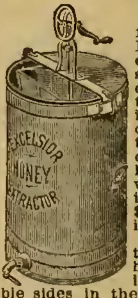
Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

WRITE

TO SMITH & GOODELL, Rock Falls, Ills., for low prices on Apiarian Supplies.
16A4t

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	$8 00
For 2 Langstroth "	10x18	"	8 00
For 3 " "	10x18	"	10 00
For 4 " "	10x18	"	14 00
For 2 frames of any size,	13x20	"	12 00
For 3 " "	13x20	"	12 00
For 4 " "	13x20	"	16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.

M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

Thirty Years a Queen-Rearer.

LONGER in the Business than any other man living. Send for Price-List.

HENRY ALLEY,
14Atf WENHAM, Essex Co., MASS.

BEST ROOFING Any one can apply it. Catalogue & samples Free **NO TAR**
ESTAB. 1866. W. H. FAY & CO. Camden, N.J.
Also St. LOUIS. MINNEAPOLIS. OMAHA.
15A8t

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. May 11, 1887. No. 19.

Life is a Leaf of Paper White,
Whereon each one of us may write
His word or two—and then comes night.

Our Friend, G. M. Doolittle, is reported "on the sick list." We trust it will not be long before he may be reported as "fully recovered," and busy with his daily duties in the apiary.

A Pound of Bees, in early spring, with a good queen and a liberal use of comb foundation in the brood-chamber and sections, will rapidly build up into a good colony, and if the season is favorable, will store considerable honey during the summer.

A Damp Cellar is more deadly than dynamite! Do not live in a house with a damp cellar. In a family of seven, two have just died, and five are ill with typhoid fever—all from a wet cellar; the drain having become filled up.

Dr. Brown, of Georgia, lost his residence by fire on April 29. Loss, $4,000; no insurance. We could hardly believe that Dr. Brown could be so very unmindful of his interests as to neglect to insure his property. That is a duty no one should neglect. Our sympathies are with our friend in his loss.

"**Florida Bee-Keeping** has had a set-back," says a correspondent. "About one-half of all the bees here in January of last year are now dead. The 85 colonies brought here from Iowa by Mr. Poppleton, were nearly all dead at last accounts." This is very discouraging to apiarists in Florida.

J. C. Melcher, who inserted a small advertisement 5 or 6 times in the BEE JOURNAL recently, writes as follows: "I have received several hundred answers to that advertisement." This shows the value of judicious advertising in the AMERICAN BEE JOURNAL.

Liquid Honey.—In answer to a query on page 292, Mr. G. W. Demaree makes this announcement:

> I have found by 8 years' experience, that the word "extracted," as applied to liquid honey, has damaged my trade in the article severely. In all these years I have failed to teach my nearest neighbors to adopt the misnomer. I have given it up in despair, and now call it *liquid honey.*

The only objection to calling it "liquid honey" is the fact that very soon after it is taken from the combs, it granulates, and then it is *not a liquid!* As well might you call ice *liquid water!* as to call this candied-sweet *liquid honey!* It would be an unfortunate misnomer!! At the convention of the North American Bee-Keepers' Society in 1879, the following resolution was passed unanimously:

> *Resolved*, That the North American bee-keepers, in convention assembled, do earnestly ask the commercial reporters of the newspapers to use the words "extracted honey" instead of "strained honey" in their price-current reports.

Until a better name—one that can be truthfully applied to it—can be found or invented, we must stick to the name "extracted honey." Not that it is unobjectionable, but it is the best that has been presented so far! The chief objection to it is the fact that there are now so many "extracts" on the market, and some people think that this is the "*extract of honey*"—not the real thing! We would like a change—but it must be also *an improvement!*

No Patent Bee-Hives.—Some evil-disposed person in Indiana is reported to have stated that the Editor of the BEE JOURNAL had positively asserted "that there were no patent bee-hives in the United States."

We do not know who the person is, but the report to us comes from Warren County, Indiana. We now publicly deny ever having *written* or *stated verbally* any such thing! and demand the proof for such a charge!

More than any other publisher of a bee-paper have we said in favor of respecting patents, and the rights of individuals to their inventions, as guaranteed by the United States Government! Such a charge is not only a deliberate and *cruel falsehood*, but "made up out of whole cloth," devoid of any single thread of truth!!

Our correspondent asks us if we do "not know that James Heddon, of Michigan, has a patent on a hive?" Most certainly we do! and we also *know* that hundreds of others have patents on hives! The total number of bee-hives patented in the United States up to this date, will not vary much from 850! Of these, 591 bear date prior to Jan. 1, 1874! The number of United States patents issued on bee-hives up to Jan. 1, 1886, were 810! The next malicious falsifier will please step to the front! Next!

An Apicultural Congress and Exposition is to be held in Hanover next fall. The Minister of State will award the premiums to exhibitors. The money prizes offered amount to $1,500 besides the medals. German apiarists are a vigorous and pushing lot of individuals, and leave no stone unturned to make a large show of honey, and thus educate the people to eat honey in place of other sweets.

A Bold Trickster in St. Louis has been doing business on a very small capital and a *mountain* of "check!" He bought a very small stock of groceries of a wholesale firm for cash, and then used the wholesale firm's name without authority, for reference to those whom he proposed to swindle in large amounts.

From one man in Indiana he had ordered a car-load of butter-tubs; from another, willow-ware. Dun's and Bradstreet's agencies were overwhelmed with inquiries about him. They started an investigation, and learned that he had flooded the country with letters soliciting flour and other goods from millers and dealers, and giving them for reference. A number of millers believing his statements, shipped him large consignments of flour, some of which he has disposed of at half their value. They are still waiting to be paid, although the understanding was that the transaction should be conducted for cash.

This illustrates in some measure how producers are swindled out of their goods, by shipping them to irresponsible persons, who intend to *swindle* every one they can.

No one should send honey to be sold on commission without first finding out if the parties they ship to are reliable, and good for at least twenty times the amount of the goods to be shipped to them.

The moral taught in the above is—never to ship goods or pay money to any one with whom you are unacquainted, without first ascertaining whether they are responsible and have good credit!

Shade for Hives.—In the *Plowman*, Mr. C. H. Dibbern gives the following as his advice on the above topic:

> There will be many hot days during this month, and the bee-keeper should provide some protection both for himself and the bees. Small trees, if not allowed to grow too thick, so as to obstruct the flight of the bees, furnish a grateful shade for both. The bees seem to appreciate the shade, as well as man, and will seldom leave a hive if placed in the cool shade of a tree. If no trees are at hand, then some protection by covering the hives with boards is desirable.

Failures.—Who make them? Why the men who lose heart and fail to continue the journey once begun. The man who starts for the city of Success, and gets part way and then returns to the starting place to take another road, and again pursues his journey for a little distance only to turn back, never reaching the city. It is only he who, setting out, keeps his face as a flint, and turns neither to the right hand nor to the left, that enters the city in triumph.—*Exchange.*

Beeville, in Bee County, Texas, situated about 25 miles from the bays that fringe the Gulf of Mexico, ought to be a good location for bees. It is generally rolling prairie, with a soil of dark, sandy loam. The county contains 900 square miles, and has a population of about 3,000. One-fourth of the county is covered with timber. We have often had letters inquiring about different parts of Texas as a location for bee-keeping. Our correspondent has resided there for 28 years, and will answer letters about that county, if addressed to "County Judge," Beeville, Bee County, Texas.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

The Flavor of Extracted Honey.

Query 415.—1. Can extracted honey be put on the market of as high and delicate a flavor as comb honey of the same kind? 2. If so, give the best method of securing and handling the same?—N. J.

1. I think so. 2. Be sure that it is thoroughly ripened.—A. J. COOK.

Yes, sir. There is not space here to give my method of working for extracted honey.—JAMES HEDDON.

1. I hardly think it can. 2. I will let others answer the second question, as I have little experience.—G. M. DOOLITTLE.

1. Yes. 2. *Your* best method of handling and securing depends altogether upon what sort of a market and customers you have.—J. P. H. BROWN.

These questions hardly belong in this department. It would require a long article to explain the matter fully.—J. E. POND.

1. My experience is that it cannot. The finest quality of honey will ever be sold in the comb.—G. L. TINKER.

I think so. Leave it on the hive until thoroughly ripened, then extract and keep sealed up from the air.—W. Z. HUTCHINSON.

1. I think it can. 2. Take well-ripened honey, extract it, and seal it up at once. If it is exposed to the atmosphere for any length of time, it will lose its *fine* flavor.—H. D. CUTTING.

1. Yes. 2. Extract it as it is sold, and not as it is gathered. That is some more buncombe, some may say.—C. W. DAYTON.

1. I think it might. 2. I do not think I can answer this, and those who can, will, I think, need more room than they can have in this department.—C. C. MILLER.

Some say no; we say yes. Extract when the crop is ripe, and treat it as you would comb honey. If it granulates you may melt it over water. Extracted honey sometimes ferments, but some comb honey does too.—DADANT & SON.

1. I think so without doubt. 2. The honey should not be taken until it is thoroughly evaporated and sealed. Pass it through a cheese-cloth as it runs from the extractor, and let it have the air long enough for the imprisoned air to escape, and then close the vessel tightly and keep it in a dry place. I have samples of honey—excepting one or two years—running back to 1877, and every sample is well preserved. I have found by 8 years' experience, that the word "extracted," as applied to liquid honey, has damaged my trade in the article severely. In all these years I have failed to teach my nearest neighbors to adopt the misnomer. I have given it up in despair, and now call it *liquid honey*.—G. W. DEMAREE.

1. Yes. 2. Extract it after it is sealed over and fully ripened; then put it into kegs or small packages for the market.—THE EDITOR.

Frames for Extracting.

Query 416.—1. When the standard Langstroth hive is used for producing extracted honey, is it best to use full-depth second-stories or shallow supers on the tiering-up plan? 2. How deep should the frames for the latter be? 3. What thickness should the top and bottom bars be to prevent sagging?—New Jersey.

I use full-depth Gallup frames with 9-32 of an inch thick top-bar.—G. M. DOOLITTLE.

1. Full depth. 2. I use reversible frames with ½-inch top-bars.—A. J. COOK.

1. I see no advantage in shallow extracting stories, except the pleasure (?) of extracting twice instead of once.—C. W. DAYTON.

Both the standard Langstroth frame and a shallow 4½-inch frame on the tiering-up plan work well. I prefer the latter. The top-bar is ⅜-inch, and the bottom-bar ¼-inch.—J. P. H. BROWN.

1. I should prefer shallow supers, and work them on the tiering-up plan. 2. From 5 to 7 inches. 3. The top and bottom bars should be ⅜ of an inch to prevent all sagging.—G. L. TINKER.

1 and 2. In the early honey harvest I prefer a frame about 5 inches deep to start tiering-up. 3. The top-bars should be ⅜-inch; bottom-bars, ⅛-inch. If you use wired frames, make the bottom-bars ¼-inch.—H. D. CUTTING.

1. I prefer full-sized frames. 2. The regular Langstroth frames are 9⅛ inches deep inside. 3. I use wired frames with centre support, and find 3-16-inch top-bars and ⅛-inch bottom-bars sufficient.—J. E. POND.

After trying both styles largely, we much prefer a half-story super. We make the upper frames 6 inches deep; two such stories hold more honey than one full story, and are more easily handled. We make top-bars ⅝-inch thick, and bottom-bars ⅜.—DADANT & SON.

1. Perhaps locality has something to do with these things. I have used both the half depth and full size Langstroth frames for taking liquid honey since 1879, and the shallow frames on the tiering-up plan has given me the best results. My half-depth frames are 4⅞x17⅜ inches, the length being the same as the standard Langstroth frame. They are adjusted in cases the same size of the top of the brood-chamber, and are just bee-space deeper than the frames, viz: 5¼ inches deep, and are made so as to be interchangeable. For taking liquid honey the frames should be worked 1½ inches apart from centre to centre, and must be *fixed* in the case so that the cases can be handled without the frames becoming misplaced. 2. When foundation is used in full sheets, ¼-inch will answer for the top and bottom bars.—G. W. DEMAREE

The shallow frames undoubtedly possess some advantages in this direction, but whether they are of sufficient weight to warrant their adoption for this purpose alone, I cannot say. I would suggest that the shallow frames be one-half the depth of the Langstroth frame, or a trifle deeper, and that the top and bottom bars be a good, plump 5-16 of an inch.—W. Z. HUTCHINSON.

1. Having used both for 16 years, I have the advantages and disadvantages between full and half depth frames to be about equal. Considering the important feature of uniformity, I have lately used and would advise full depth. 3. Every thing depends. Do you use full sheets of foundation or not. Do you wire the frames or not? Do you use metal standards or not? Do you make the frames of pine or poplar?—JAMES HEDDON.

Use full-sized Langstroth frames. The top-bars should be **V**-shaped, and cut out of inch lumber; then all danger of sagging will be avoided.—THE EDITOR.

Winter Repository for Bees.

Query 417.—Suppose an earth-roofed cave, half under and half above ground, frost-proof, well drained, well sub-earth ventilated, containing a trough holding 2 barrels of water, into which, and from which, by a sub-earth pipe passes 4 or 5 barrels of fresh water every morning and evening, from a well (the temperature of which water is 46 degrees Fahr.) 1. Would such a cave be a good winter repository for bees? 2. Will the trough of water be a benefit or an injury to the bees? 3. How many colonies will be safe in such a cave, the dimensions being 10x15 feet, and an average of 6 feet high?—S., Central Ills.

I see no great objections to such a repository. 3. From 50 to 75 colonies.—J. P. H. BROWN.

If the walls are dry, and you can give ventilation when needed, you can safely winter in it 150 colonies, or as many as it will conveniently hold.—DADANT & SON.

1. Yes, if the temperature was maintained at 44°, and the hives ventilated at the top. 2. Neither. 3. According to my experiments in even temperatures, 500 colonies.—C. W. DAYTON.

1. Yes. 2. I should say it would be a benefit by keeping an even temperature, if nothing more. 3. As many as it will conveniently hold.—G. M. DOOLITTLE.

1. I think it would be a good repository for bees. 2. The water would be a benefit; it will absorb impurities which would be carried out with the water.—H. D. CUTTING.

1. It would depend upon the temperature maintained in the cave,

whether it was a good place to winter bees. I think with fresh water flowing through it, a higher temperature would be required than in a dry cave. 2. I think the water would be a benefit if it kept the temperature at 45° and above. 3. If the conditions were right, you could not get in too many. —G. L. TINKER.

1. Yes, I think it would. 2. It may serve to equalize the temperature; it would have no other beneficial effect. 3. As many as can be stored comfortably. The above is theory with myself drawn from reading experiments of others; I have never wintered bees save on summer stands. — JOS. E. POND.

I think it would be a good winter repository for bees, and that the water would be beneficial. I have had no experience with very large numbers of colonies in cellars; but I should think this size of cellar would answer for from 100 to 150 colonies.— W. Z. HUTCHINSON.

1. I should guess it would be an excellent place, but you can tell better by trying. 2. Perhaps a benefit. 3. If it is really *well* ventilated, it is possible that it might bring through in good condition all it would hold; 150 colonies ought certainly to winter in it well, and a less number would probably do still better.—C. C. MILLER.

1. I should say capital. 2. Yes, because it will aid materially to control the temperature. 3. Just as many as you can get in, providing you can keep the temperature at 45° Fahr., in the coldest weather, which I believe would be possible with such an arrangement.—A. J. COOK.

1. If the temperature be kept at about 45° Fahr., the cave will no doubt answer well. 2. The water would be beneficial in equalizing the temperature. 3. It will do to comfortably fill it.—THE EDITOR.

Convention Notices.

☞ The next meeting of the Darke County Union Bee-Keepers' Society will be held at Greenville, O., on Friday, May 27, 1887.
J. A. ROE, *Asst. Sec.*

☞ The next meeting of the West Lake Shore Central Bee-Keepers' Association will be held on May 26, 1887, in Koekring Hall, at Kiel, Wis.
FERD ZASTROW, *Sec.*

☞ The May meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rockton, Ills., on Tuesday, May 24, 1887.
D. A. FULLER, *Sec.*

The New York World says that many a dealer who places a $10 advertisement in his village paper begrudges his investment when it is worth double to him what he pays for it. Advertising rates in city newspapers would astonish such business men. One column in the Chicago *Tribune* costs the advertiser $26,000 per annum. The New York *Herald* receives for its lowest price column $39,562, and for its highest price $63,800. The New York *Tribune* for the lowest, $29,754, and for the highest price $85,648, and these papers never lack for advertisements to fill their columns.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ⚨ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⚩ northwest: ⚲ southeast; and ⚳ southwest of the center of the State mentioned.

For the American Bee Journal.

Legislation on Priority of Location.

WM. F. CLARKE.

On page 251, under the side-heading, "Where is it found?" Dr. C. C. Miller writes: "On page 218, in the address of Rev. W. F. Clarke, occurs the following statement: 'It is proposed by some to pass a law securing to the first-comer as a bee-keeper into a neighborhood, the exclusive owership of the bee-forage within certain limits!' Will Mr. Clarke kindly give the names of some who have made such a proposition, and also the place, if any, where it has been mentioned in any of the bee-papers?"

A civil question is entitled to a civil answer, and I shall do my best to give it frankly and fully. In my reference to "some," I had more particularly in view Dr. Miller himself, Mr. Heddon, and Mr. Betsinger. At the outset of the discussion, Dr. Miller was generally understood to advocate legislative protection to "the first-comer as a bee-keeper into a neighborhood." Mr. Heddon hailed his utterances at the Indianapolis convention as harmonious with those previously made by himself in favor of priority of location, but did not agree with the Doctor in trying to secure it by legislation. After the discussion had been going on for some months, Mr. Heddon, on page 138, withdrew his contention with some facetious hits at the Doctor, and said, "I give him the case for the present at least." Mr. Betsinger, who was at first inclined to oppose the Doctor's views, announced himself as a convert to them, on page 105. I reply, therefore, that all three of these gentlemen have advocated the proposition mentioned in my address, and, as requested, I will now proceed to cite quotations from the "place" where they have done so, viz: in the AMERICAN BEE JOURNAL.

The Doctor first aired his pet scheme of legislative protection for bee-keepers at the Indianapolis convention in October last. There was no verbatim report of his remarks in advocacy of the movement, and I will not pretend to quote him, but the impression made on my mind and on the minds of others was, that he wished legislative recognition of a right of pre-emption to territory in which to keep bees. Thus Mr. Heddon understood him. He says in the AMERICAN BEE JOURNAL for 1886, on page 709: "Only a few months ago I wrote on the subject of 'priority-right of location,' trying to show why the prior occupant had the natural exclusive right....Surely, none have forgotten how malignantly my position was attacked....Imagine my surprise at noting that at the Indianapolis convention a committee was appointed to inquire into the desi bility and feasibility of asking ou Government to legislate this condition of affairs."

In the same volume, on page 743, Dr. Miller thanks Mr. Heddon for giving his view on page 709, and substantially endorses it. He says: "I understand Mr. Heddon to claim that the prior occupant has a natural exclusive right, and that such exclusive possession would result in the greatest good to the greatest number. In this we are very nearly, if not altogether in accord;" and he goes on to specify as the point in regard to which they are not quite in accord, Mr. Heddon's "idea of a natural exclusive right of the prior occupant" securing of itself "the survival of the fittest." Instead of leaving the result to the operation of natural law, the Doctor would secure it by legislation. He says further: "However much thought Mr. Heddon may have given to the matter of rights as to 'priority of location,' I cannot believe he has given much thought to it with the possibility of legislation in view, but it seems to me that without much thought upon this branch of the subject, he has hastily settled upon the conclusion that because there was no legislation there could be none, etc." No legislation on what? "Rights as to priority of location" is the Doctor's own statement of the case, which Mr. Heddon would leave to the operation of natural forces, but which Dr. Miller would have regulated by law.

In the AMERICAN BEE JOURNAL for 1886, page 775, Mr. Heddon replying to the Doctor, contends that the "natural right of priority" is competent to take care of itself without such legislative aid as Dr. Miller proposes. On page 794 of the same volume, Mr. W. H. Osborne urges the following valid and strong objection to the Doctor's position: "There are persons in this village who have kept bees longer than I have, and if by reason of priority, I must surrender the business to them, such legislation might seem more desirable to them than to me."

In the AMERICAN BEE JOURNAL of Dec. 22, 1886, Mr. C. G. Beitel says: "Again, when we scan closely a law such as is contemplated, we cannot fail to perceive what a source of litigation it might prove. The question of priority of location would often be as difficult to establish as that of priority of invention, etc." In the present volume, on page 57, Mr. J. E. Pond, under the heading, "Legislation for Bee-Keepers," and evidently discussing Dr. Miller's proposition, says: "The question of priority of location of an apiary is one on which my views are so well known, that I need not, neither do I care to discuss it; but the question of legislation on that subject is one on which more light is needed, and for that reason may have a small share of attention." In that issue of the AMERICAN BEE JOURNAL, Dr. Miller for the first time disclaims the priority idea, saying: "And now it is Mr. L. N. Tongue, on page 24, who sets up the priority question in order to knock it down. Has Mr. Tongue not yet found out that nobody ever asked for, or hinted at wanting legislation on the priority question?" I read that with amazement, but not being in the controversy, I did not care to bring the Doctor up with a sharp turn by quoting his previous utterances, and pointing out the drift of the discussion as I have now done.

On page 69, present volume, there is a long article of the Doctor's probably written before the brief reference to Mr. Tongue in the previous number. It is mainly in reply to Mr. Heddon, and mentions "priority of location" several times without any disclaimer of it as part of his scheme. He even says, "In the generality of cases I believe in the priority right." Further, in replying to Mr. Heddon's remark, that "priority of location gives one a natural right, *provided he is fit to hold that location*," the Doctor proceeds to argue again against the natural "survival of the fittest," and pleads for legislation for the sake of those who try to crowd in but cannot, and are involved in loss by their futile attempt, which, he says, might have been prevented if the first comer could have said: "This territory I hold in fee simple as my own, and you must go elsewhere if you want to keep bees." Still arguing along the priority line at considerable length, the Doctor winds up by asking, "On all accounts, then, should not every man have a legal right to his own ground?"

On page 154, Mr. G. M. Alves thus defines the question at issue: "Mr. Heddon thinks that the claims of 'priority of location' are right in morals, but doubts whether legislative bodies could be induced to enact a law for the enforcement of the same. Dr Miller not only accepts the principle as right, but goes further, and gives it as his opinion that it would be practicable to make it statutory."

On page 199, Dr. Miller is "aroused." He is replying to Mr. J. E. Pond, and asks that gentleman to name "a single person who has ever advised, requested, or desired any legislation on 'priority?' Getting still more "aroused," he says, "Why it is that everybody tacks on 'priority,' I cannot imagine." Again, as if fearful he has not been emphatic enough, he says, "Allow me to impress the fact that so far as I know, no one has ever advocated obtaining legislation in favor of 'priority of location.'"

I am forcibly reminded of an incident of my juvenile days. Our school was in a second story, and the stairway leading to it had a pair of banisters. One day some of the boys played a dirty trick on the master. They smeared the banisters with some filth, and seated serenely in the school-room, awaited his arrival. Just as they expected, he had run his hands along the banisters as he came up-stairs, and got them sadly bedaubed. He hastened to his desk, and offered a reward of half-a-crown to any boy who would tell him "who had hands in this." A boy volunteered the desired information, and gave it by saying, "Please, sir, you had hands in it."

I am at a loss to know why Dr. Miller should wax so warm in his tardy disclaimers of the priority idea. As Mr. Pond very justly says, on page 233, "I cannot see how the question of legislation, as desired by Dr. Miller, can be divided from that of priority."

Guelph, Ont.

For the American Bee Journal.

Wabash County, Ind., Convention.

The Wabash County, Ind., Bee-Keepers' Association met at the G. A. R. Hall, at North Manchester, Ind., on April 20, 1887. The meeting was called to order by the Secretary. The President and Vice-President being absent, J. C. Zimmerman, of Wabash, was chosen President *pro tem.*

The reading of the minutes of the previous meeting was heard and approved, after which a discussion followed on "When should sections be placed on the hives?" Messrs. Martin, Whitlow, Miller, Comstock and Zimmerman all agreed that they should be put on as soon as honey begins to come in; Mr. Singer would not put them on too soon, on account of too great loss of heat from a colony.

"Can the pure fertilization of queens take place by drones from a miss-mated Italian queen?" It was decided that they could.

The following questions were taken up in order and discussed: "Which is the most profitable, comb or extracted honey?" "Can a man who runs his apiary for honey, combine it profitably with queen-rearing or *vice versa?*" "Is spring feeding to stimulate rapid breeding profitable?" (No.) "How can we keep our bees from bothering our neighbors?" (It was decided that there is no trouble when only a few colonies are kept). "Is it necessary to have bee-space between the cases?" "How do you prevent robbing?"

The following essays were read: Aaron Singer: "Do gentle bees gather as much honey as ill-tempered ones!" "What sized packages sell the best?" "When should we transfer?" J. J. Martin: "How do you get your bees to work in the sections where you want them to?" The following resolution was then passed:

Resolved, That this convention consider the Italian bees superior for all purposes, and each member endeavor to Italianize his apiary as rapidly as possible.

The following officers were elected for the ensuing year: J. J. Martin, President; Alex. Hess, Vice-President; F. S. Comstock, Secretary; and H. C. Whitlow, Treasurer.

The next meeting is to be held in Wabash next fall, the time to be decided by the executive committee.

F. S. COMSTOCK, *Sec.*

Read at the Wisconsin State Convention.

Honey Adapted to the Human System.

DR. J. W. VANCE.

The subject of honey ought to be of interest to the agriculturist, knowing as he does, that every flower which blooms on his farm and along the highway yields its delicious nectar to the busy bee that, with tireless wing, flits from flower to flower in quest of its food. From every meadow, orchard and forest the summer-wind bears away countless tons of this precious product that ought to be gathered for the good of mankind.

It is not of the importance of bee-keeping as a pursuit, or the progress of bee-culture, that I wish to descant, but rather to say a few words about honey—to speak of its constituents, and its perfect adaptation to the wants of the human system, and of its superiority as a saccharine product to all other sweets in common use.

Although honey has a very ancient history, both sacred and profane, having been in use from time immemorial, its praises sung by inspired and uninspired poets, yet in modern times it has fallen into comparative disuse, perhaps on account of the competition of cane and grape sugars, and syrups made from them. The use of honey has almost become a lost art. It seems to be regarded by most people as a luxury only, and seldom appears on the table except on great occasions. Away back in the annals of time, our ancestors used it as a common article of food, and in cooking.

Honey is a physiological sweet; in other words its constituents are such that it is absorbed into the blood without undergoing chemical change. Such is not the fact with regard to sugar. Sugar is indigestible, or rather not as susceptible of absorption and assimilation as honey, but it requires the action of the gastric juice to split or invert its elements, the muriatic acid element of the gastric juice being the chief agent in this chemical transportation. This change produces what is termed in chemistry dextrose and lævulose. I presume this explanation does not convey a very clear or definite idea of the nature of these products, for the names applied only indicate how they affect polarized light. After this change occurs, absorption takes place. If in any way it is hindered, or, on account of an excess of sugar above the capacity of the gastric juice to transform, there remains a residue, the result is decomposition into elements that irritate and inflame the mucus membrane of the intestinal canal, producing a list of ailments too numerous to mention here. Think of the legions of little ones who have been the victims of their universal fondness for sweets, and who so frequently suffer from gastric troubles which are, in a large degree, the result of sugar indigestion. How many, many children have perished from eating candy!

The importance of sugar as an element of food may be inferred from the large proportion of the elements of our food which is transformed by the action of the digestive organs, into the constituents of sugar. Consider the proportions of bread, potatoes and vegtables that we consume daily, all of which must undergo this saccharine change before they are suitable to be appropriated by the human system; it may give an approximate idea of the amount of these elements that are required to nourish our bodies.

If, therefore, the saccharine comprises so large a part of the elements of our food, does it not become an important question as to what form of sweet is the most appropriate and healthful for the nutrition of the human body? For the reasons I shall hereafter enumerate, it seems to me that you will agree with me that honey is the most important and the most healthful, because it is absorbed into the system without change, and, because, unlike sugars, it does not easily undergo fermentation. The formic acid which is an ingredient of honey, prevents chemical change and the morbid processes arising from decomposition of sugar.

Let me repeat the points of difference in ordinary sugars and syrups, and their comparative inferiority to honey as a saccharine food: Honey is an inverted sugar consisting of lævulose (fruit-sugar) and dextrose (starch-sugar) and readily absorbed into the system without being acted upon by the gastric juice. Sugar and syrup require the action of the gastric juice, converting, or as it is expressed in chemical language, inverting it into dextrose and lævulose, before it is susceptible of absorption and assimilation in the blood. When thus acted upon by the digestive organs, it is assimilable, but in case of weakness of digestion, this action does not occur, and decomposition is sure to follow. Honey is not only a delicious form of sweet, but is a very healthful and nutritious form of food. It aids the natural functions of the alimentary canal. It is recommended, by those who have thus used it, as a refreshing drink, diluted with water in the proportion of from 2 to 5 per cent.

As a remedy for croup and sore throat, it is quite efficient. It is highly useful as a vehicle in the administration of medicine in the treatment of diseases of the mouth and pharynx, in the form of a gargle.

It would require too much time and space to enumerate the many valuable uses to which honey is adapted in medicine and surgery, as well as a most nutritious and healthful food. If these hints may tend in even a small degree toward bringing back into general use that sweet which comprises so large a part of the food of our remote ancestors, I shall be glad. Let us hope the people of our country will recognize the presence of such a perfect natural product, as will induce them to make a larger use of it as a food as well as a luxury.

Madison,♀ Wis.

For the American Bee Journal.

Alfalfa as a Honey-Plant.

W. L. PORTER.

On page 248, Mr. A. J. Foss refers to the proceedings of the Colorado bee-beepers' convention of last March. The report referred to was one taken from the Denver daily papers. I did not have the pleasure to be present at the meeting, but it was evident that the reporter aimed to make something very pleasant to read—something like "Wiley's pleasantry." While we have many ladies in Colorado who are engaged in bee-keeping (and they deserve to be complimented highly), still they are not in the majority, and not the most extensive apiarists in the State.

I am in one of the greatest alfalfa sections in the State, and I have made bee-keeping a business here for the past six years, yet I must say that I am not able to declare alfalfa a honey-plant of any note. I have observed with my best observing powers, since I have been here, to ascertain the value of alfalfa as a bee-forage, and as yet I am not able to sing its praises; and if a person would exhibit a pound of honey and call it pure alfalfa honey, it would be exclusive evidence that he was not an "observer," or did it for "pleasantry."

There is no time in the season when alfalfa is in bloom, that other flowers do not figure largely as honey-plants. The latter part of June, when the first cutting of alfalfa blooms, there is an abundance of Colorado-mint on which the bloom lasts about four weeks, and it produces an abundance of beautiful white honey; raspberry is also in bloom at this time. At the time the second and third crops bloom, there is an abundance of cleome, and it is certainly from this that we get our greatest yield.

When we have the mint in abundance, it is rare to find a bee on alfalfa; the same is true when we have cleome and other valuable plants in bloom. The bees seem to take alfalfa as a make-shift—work on it when they can find nothing better. There are times when the bees fairly swarm on the alfalfa, but it has been my experience that when they are working the strongest on it, they are at a standstill in the sections.

One great draw-back with the alfalfa—if it is a honey-plant—is that when raised for hay, it is cut as soon as the first bloom opens. When farmers leave it to get a crop of seed, it gives the best chance for honey, and it might be that the latter part of the bloom is richer in nectar; but on this I have not had a fair chance to observe. Since I came to the State I have produced over 25,000 pounds of honey, and I never have had an ounce that I could call alfalfa honey. I can recognize the mint, cleome, raspberry, and certainly the rosin-weed; but what alfalfa is like, I have not yet learned.

Two years ago I read an article in the BEE JOURNAL, from one of Colorado's most flowery writers, setting forth the great honey-resources of the State. He said that the cactus was one of the best of honey-plants, from which the most of our honey was gathered. There are many hundred acres of the cactus within a mile of my apiary, and it is a beautiful sight to see it in bloom; but I never have seen a bee either gathering honey or pollen from it. It is evident that the writer pictured vividly in his imagination. He perhaps thought from its abundance, beauty, fragrance and uselessness, that it ought to be a honey-plant! Perhaps this is the way the conclusions about alfalfa have been obtained. I am not prejudiced against it, for it certainly will produce more hay to the acre than any other plant, and I should be glad to be convinced that it is the greatest honey-plant. But the foregoing is my sincere observations.

Greeley,♂ Colo.

For the American Bee Journal

Hiving Swarms—Building Drone-Comb

G. M. ALVES.

Mr. Hutchinson's book, entitled "The Production of Comb Honey," I have read with very much interest. The clearness with which the author states his ideas, together with his enthusiasm, raises his performance at times to some considerable degree of brilliancy. A work of this kind, coming from a man practical in details, as Mr. Hutchinson undoubtedly is, never fails to strongly interest.

Upon the last page, the reader is freely invited to candid criticism. I wish here to take advantage of this frank invitation.

The central idea of the little book is "hiving swarms on empty frames." Mr. Hutchinson's arguments in this direction, are given with such vigor and clearness, and the facts upon which they are based are so abundant and so strongly vouched for by him, that I feel compelled to accept his conclusions, provided along with them it is *insisted* that the swarms should be in a normal condition, *i. e.*, that they should be natural ones, or if "made up," they should satisfy the general conditions of natural ones. My observations are, that a "made-up" swarm indiscriminately treated in this manner, will as a rule give unsatisfactory results. I take it that Mr. Hutchinson intends this treatment only for natural swarms, but he does not plainly make this distinction, and hence the novice might conclude that if it was well for a natural swarm, it would be equally well for one "made up." The gist of my objection to treating "made up" swarms indiscriminately in this manner, will appear in a discussion of his observations to be found upon page 33 of his book. He raises the question *why* bees build drone-comb, and then answers: "I believe they always are actuated by one of two reasons, viz., to rear drones in it, or to enable them to store honey more rapidly."

I hope it will not be considered hypercritical when objection is raised both to the form of the question, as well as the answer given. *Why* bees do any given thing, would seem to pre-suppose a power of reason and volition which they by no means possess, and I have not found that bees construct much drone-comb "to store honey more rapidly" when conditions are normal.

It seems to me preferable to put the question in this form: Under what conditions do bees build drone-comb? To which I would answer: When drones are likely to be needed, and when during a honey-flow queens are inactive, either from superannuation or from being in a recuperative state. My observations have been so numerous, and the results have been so uniform, I accept it as a natural law, that bees with a queen in a prolific state, are impelled to construct little drone-comb, and with a queen in an unprolific state (it matters not how fruitful she may be normally) will be impelled to construct a considerable amount.

I have always found that for a certain time previous to casting the first swarm, the queen becomes quite unprolific, and remains so until the swarm issues, by which time she has recuperated, and then again becomes prolific. I have noticed this so repeatedly, and it is so in accord with similar phenomena in natural history, that I would much question the accuracy of any observations to the contrary. Therefore, in using Mr. Hutchinson's method when dividing for increase is resorted to, great precaution should be taken that the queen should not be in or near her resting state; and we are very liable to get such an one in the old way of dividing or driving just before the season of natural swarming. In dividing colonies for increase it would seem that the only proper way of using this method would be in employing only young prolific queens.

In a merely scientific point of view, there are some passages scattered through the book, besides the one already pointed out, that are inaccurate and tend to indefinite ideas. For instance, after mentioning the fact that when an empty frame was inserted in the centre of certain colonies before swarming, it was filled mostly with drone-comb and drone-brood, whereas after swarming the same queens and bees when hived upon empty frames, filled them with worker comb and brood. The reason for their different action is then given as follows: "Before they swarmed the bees knew that drones must be provided for the fecundation of the young queens, etc." Now we may not attribute to bees such power of reasoning, nor may we conclude that they are not impelled by laws over which they have no control, and in which they have no volition.

The fact is, the bee is but a product of natural law. In the first instance, the colonies were in a state of more or less inactivity, in which if the queen laid at all, she must deposit mostly drone eggs, which even the workers are at times able to do. In the second instance, recuperation had been accomplished, and the queen and all were impelled to active duty. In both instances the queen and her bees were merely the *subjects* of natural laws; and because these laws of rest and activity are beneficent in all directions to the perpetuation and well-being of the bees, we are not allowed to conclude that the bees themselves do any intellectual planning, but rather that their *very existence* is only to be accounted for by the fact that they are the merely passive subjects of these (to them) impelling and immutable natural laws.

However, as before said, the book is filled with contagious enthusiasm and pointed suggestions, and I hope all will read it. It will certainly be to their interest to do so.

Henderson,♂ Ky.

For the American Bee Journal.

Hives for Comb Honey.

J. H. ANDRE.

During the season of 1886-87 I described a new hive; I still think now, more than I did then, that it was *the* hive for comb honey and for wintering bees, but one objection is its cost, and another is its difficulties in manipulating its frames. One reason that I made it was, I did not like a large frame, and also I thought if the frames were deep enough to contain honey in the tops all of the time, the bees would enter the sections quicker than they would from dry combs, and the sections would be cleaner than they would be if they run across old black comb. In both of these I believe I am correct, but taken all in all, cost and everything into consideration, I would not advise any one to try them, as I wish to be fair, and not mislead in the pursuit of bee-keeping.

I had not decided until a day or two ago to throw them aside, but while cleaning out a hive that the bees died in the past winter, I saw that their objections over-balanced their good points.

I shall use a hive in the future 14x17 inches, Simplicity depth, frames crosswise, two 6-inch entrances on the side (cut out of side instead of bottom), case of 32 sections, no division but to rest on strips, and if it troubles to remove the case entire, I will remove the sections. With a division-board a colony can be hived in one-half the hive as two in one hive. I like a loose bottom, but if I cut the entrance in the side of the hive, and place the frames as high as will be practicable, I think I can clean out the *debris* in the winter, and save something there in the way of clasps, etc.

Bees have gathered but little pollen yet; it is the most backward season for bees that I ever knew.

Lockwood,♀ N. Y.

For the American Bee Journal.

Sections Filled with Comb, etc.

W. Z. HUTCHINSON.

I have just read the article of Mr. Dibbern, on page 264. I fear he does not use the right kind of sections, nor take the proper care of them, as he speaks of their becoming soiled by honey that has leaked out, by dust, bleached by the light, or stained by getting wet.

Basswood sections are easily soiled by any honey that may become daubed upon them, but white poplar is free from this objection. Mr. Dibbern takes Mr. Thielmann sharply to task, as not being a progressive bee-keeper, because he does not use separators; it seems to me that allowing sections of comb to become covered with dust, bleached out by the light, and stained by getting wet, are not exactly signs of progression, but rather of neglect and carelessness. Of course sections treated in such a manner could scarcely be classed as "number one." I always put my unfinished sections into cases in the fall, and pile them up carefully, putting a tight-fitting cover at the top and bottom of each pile, being careful that there is not a crevice left large enough for even a spider to enter; and in the spring they come out just as sweet, clean and fresh as when put away. It is possible that the fall-built combs of some localities are dark or yellow, but such is not the case here. Of course *dark* combs ought not to be used for white honey.

Mr. D. says: "In an apiary that is run upon correct principles, there will be few or no combs built during the white honey harvest to carry over to another year to be refilled." Of course if the bees are crowded near the close of the honey harvest, a greater proportion of combs will be finished, but I have never found it profitable to do this, especially as I find empty combs so valuable in the spring.

In regard to getting the combs cleaned up: There is no necessity for putting the sections on the hives and leaving them until the weather is so cool that there is difficulty in removing them. They may be placed upon the hives in the forepart of a pleasant day, and will be ready for removal before night. If left upon the hives several days, the first pleasant day should be improved by their removal. The bees may be gotten out of the cases in the same manner as from cases of honey. Smoke as many bees as possible down into the hive, then remove the case and shake it vigorously in front of the hive, which shaking will dislodge most of the bees, when the case may be carried to the screen-house and placed upon end, where the few stragglers will seek the light and escape. To attempt to perform such operations upon a *cool* fall day would be folly, but upon warm days, such as *always* come after the close of the honey harvest and before cold weather, it can be managed without *any* trouble.

There is still another method, viz: that given by Dr. Miller in his book: Pile up the cases of sections out-of-doors, or in some place accessible to the bees, then adjust the cover in such a manner that only one or two bees can pass in or out at once, and the combs will be cleaned up with no further trouble.

THE CAPPINGS OVER HONEY.

It seems to me that Mr. Dadant, on page 267, offers to yield the palm upon peculiar grounds; viz., if I can succeed in evaporating honey to one-half its former bulk, he will admit that the cappings over honey are not impervious. I fail to see how this would be satisfactory proof. I presume that the ground that Mr. Dadant desires to take is this: If honey *cannot* be evaporated one-half, then the "distinguished apiarists" were mistaken. It is quite probable that they did not take the trouble to measure the amount of evaporation; they probably saw that the honey occupied considerably less space, and used the expression "one-half" without intending to be *exact*. Such expressions are often used, colloquially, in this manner. I believe, though, that Mr. Poppleton did not say "one-half"—he simply said: "The honey in the dry atmosphere will become thicker and occupy less space."

So far as the question under discussion is concerned, it is immaterial whether the honey evaporated to one-half or only nine-tenths of its former bulk.

Rogersville, Mich.

For the American Bee Journal.

How to Market Honey.

W. A. PRYAL.

The following article I wrote for the San Francisco *Chronicle* last August, and thinking that it might be of interest to the readers of the AMERICAN BEE JOURNAL, as the subject of marketing our honey crop is now being discussed, I send it as my contribution on this interesting and important matter. The article is substantially as follows:

"Every year, no matter whether the season has been favorable for a heavy production of honey or not, the same complaint is heard from the bee-keepers—that the prices netted for their product are not sufficient to more than pay expenses. For years the price has been steadily going downward, especially for the extracted article, until it seems now to have reached a point beyond which it is impossible to sink. One desperate apiarist in southern California, who has been netting 2½ cents or less per pound for fine white-sage extracted honey, says that he will ship no more, but has commenced feeding the honey to his hogs, confident that they will fatten readily upon it, and that he can convert them into a choice article of honey-fed bacon. This seems to be the first instance on record where it has been found more profitable to dispose of so delicious an article in such a manner. The same man is also experimenting by mixing extracted honey in the feed of his cows, and thinks that good results are bound to accrue from such a source.

"It is a great pity that bee-keepers should not receive a fairly remunerative price for their honey, and the whole trouble lies in the fact that people in large cities, like San Francisco, are not educated to its use, and do not have it brought to their attention in such a manner as to lead them to make it a regular portion of their daily diet. It is not necessary here to go into a dissertation upon the subject of the healthfulness of honey as a regular concomitant of the table. From time immemorial this fact has been recognized by writers and physicians.

"Honey enters largely into the preparation of many excellent remedies, particularly those which are adapted to the cure of throat and lung troubles, and many who have cured such affections in their own persons, can testify to the marvelous healing-powers of honey when freely consumed. What is needed is to have the honey—both extracted and comb—brought directly to the attention of house-keepers, especially of the middle and poorer classes, in such shape and at such a price that it will be within the reach of the most limited purse. Even at the low prices complained of by the producers, it is a fact that by the time the honey is offered at retail, the rate asked is such that it is regarded as a luxury, instead of, as should be the case, a common article of diet.

"Extracted honey is the purest and cheapest sweet that is known. It should displace molasses in every household, and may be made to take the place largely of sugar. There are many bee-keepers in this State who do not consume a pound of sugar from one year's end to the other. The better grades of white honey are used in all culinary operations, and even for sweetening coffee and tea, and one cannot detect the difference between food so prepared and that into whose composition the best grades of sugar have entered.

"Many Eastern bee-keepers have solved the problem of a profitable market for their honey by fitting up wagons and making regular trips from door to door in the towns and cities, and as soon as the excellence of their products becomes known, they have no difficulty in disposing of all they can produce at good prices. There is any opening, or rather any number of them, in any large city for such an enterprise. The extracted honey should be carried in a tank, from which it may be drawn in any desired quantity, and the purchaser not be obliged to pay a high price for the glass or tin vessel in which, as is now the case, extracted honey is sold. The comb should be in sections without glass, so that when a person buys honey he gets as little of anything else as possible with it. By offering the honey at such moderate prices as may now be done, and still save a profit, a great many tons of the article might unquestionably be disposed of in any city at a good profit, and a steady demand thereby created where now not a hundred pounds finds sale in a twelve-month."

North Temescal, Calif.

For the American Bee Journal.

Reports on Wintering Bees.

G. W. DEMAREE.

Mr. Gilliland's statements on page 249, places the question of the natural condition of bees in winter quarters beyond all philosophical argument. Were I to attempt to reply to his "facts," it would be a dead-set case of "'tis and 'taint."

The case which he cites, however, of a hive-cover being blown off, must be ruled out, as that was a case of disturbance, not a natural condition. But it happens that I, in the same winter (1885), wintered a large colony without any protection over the tops of the frames, only what a 10-inch super with a flat hive-cover on top of it might be supposed to afford. That colony endured a swoop of 20° below zero in the month of January, 1885, the coldest weather here of which we have any record. When the hive-cover was raised to peep in, the bees could be seen sandwiched between the combs, silent as the dead. They never "roared" until spring-time, and until the proper conditions were present.

My love for the honey-bee has bordered on infatuation for over 40 years, and in all these years when I have kept bees, I have missed the gentle hum of the bees in the winter months. But when spring-time would come, with sunshine and flowers, and the bees would begin to breed up, a joyous "roar" would begin to be heard in the apiary after the day's toil. Every apiarist knows how this state of things gladdens the heart, touched by the spring resurrection. But now Mr. Gilliland reverses the whole thing, and has the bees "roaring" in zero weather, and silent when the "sun warms things up." This difference in matters susceptible of proof, must be settled, if at all, by the preponderance of the evidence, and I propose, the Editor concurring, that this question in bee-science be settled in that way. I will suggest that all bee-keepers who feel inclined to do so, write on a postal card, addressed to the AMERICAN BEE JOURNAL, in substance like the following, according to the facts and their experience:

BLOOMFIELD, Ind., April, 1887.

I wintered my bees on the summer stands, protected and unprotected. At a temperature of zero and lower the bees "roar" until they can be heard "10 feet from a hive."—JOHN C. GILLILAND.

CHRISTIANSBURG, Ky., April, 1887.

I wintered my bees on single-walled hives, on the summer stands. When the temperature approaches zero, or goes below, no sound issues from the hives, if the bees are in good health.—G. W. DEMAREE.

If a great number of such reports should be sent in, they could be condensed and put in tabular form so as to occupy but little room. Who would not like to see the result? Let us have the evidence.

Christiansburg,♂ Ky.

Western Plowman.

Apicultural Notes for May.

C. H. DIBBERN.

Of all the months of the year May is perhaps the most important to the successful apiarist. Of course this statement would apply to April in the States south of "Mason and Dixon's line." It is yet too early to expect to secure much surplus honey, and I find it more profitable to direct all my energies to building up my colonies to a uniform, strong condition. If the bees are worked for extracted honey, some extracting may be done to advantage during fruit bloom; but for comb honey, I do not think it desirable to greatly increase the bee space. Then, too, honey stored so early in the sections is somewhat dark, and in my locality not much can be secured, and that only by the use of ready-built combs, which I have not found desirable. Such combs will, generally, only be partly filled, if touched at all, in patches and sealed over rather dark, to be finished later, during the white clover harvest, thus securing only second grade honey at best.

A better plan for the bee-keeper to pursue is, to equalize his colonies, by taking a comb of brood or two of such colonies as would store a little honey, and give them to such as would otherwise not build up sufficiently to store any surplus during the white honey harvest. After all the equalizing has been done that is practicable, some colonies will be found that are not up to the standard, and in such cases, the best way is to confine the bees to only as many combs as they will cover, taking the surplus combs away and contracting the space by division-boards. As the bees increase and more space is needed, give them an empty comb or two, and place them near the centre of the brood-nest. If there should be a lack of honey, a full comb may be given by placing it at the side of the brood-cluster. Of course a great deal of judgment must be used in doing this kind of work. It is not best to be forever breaking the hives open and disturbing the bees in cold weather; neither is it advisable to open the hives when there is no honey coming in, and thus induce robbing. If hives must be opened at such times, do it in the evening when but few bees are flying, and stop as soon as many robber bees appear. There is no necessity to be forever opening hives and exposing honey to robber bees. The experienced bee-keeper is able to look through an apiary of hundreds of colonies when the bees are flying, and by simply watching the movements of the bees, almost invariably can tell the exact condition of every hive.

Right here a novice is often misled. I was once called to see a very strong colony, that was supposed to be gathering honey at a fearful rate. Of course I recognized the shrill sound of the robber bee long before I came near the hive. There was quite a falling in the hopes of the bee-keeper when I told him that instead of his bees gathering honey, about all the bees in town were carrying it away.

Another case I remember: I was called to see a colony where there seemed to be plenty of bees, but were lazy, as they were clustered about the entrance doing nothing, while other colonies were piling over each other carrying in honey and pollen. When I told the owner that about all the bees in that hive were at the entrance, and that the colony was queenless, he seemed incredulous. Upon opening the hive, however, I soon satisfied him that I was right.

The bee-keeper should ever remember that he cannot expect a large honey crop without plenty of bees to gather it. In this locality, May is the month that we want to produce bees by the millions, as they are the ones that will gather the honey in June and July. Everything should be done that can be done this month to build up every colony strong in bees, and next month will be the time to work for all the honey that can be secured. If we have the bees at the right time, and the season is at all favorable, and we attend to the necessary work of placing on the surplus arrangements, there need be no fear about getting the honey.

While in this latitude but little swarming need be looked for in May, yet hives should be in readiness, for there will be plenty of other work when swarming-time comes. Indeed all the work that can possibly be done, while the weather is cool, should be attended to now. Sections should be made up, foundation placed in them and put in cases ready to go on the hives. Hives should be neatly painted, as they last much better, and help very much in giving the apiary a pleasing appearance. Everything in the shape of sections, cases or other material likely to be needed during the busy time, should be on hand. If not, order at once, as you cannot always get it at the moment wanted. Remember when you are busy with the bees, supply dealers are doubly so, and disappointment and loss are often the result.

Milan,♀ Ills.

For the American Bee Journal.

U. S. Honey-Producers' Association.

W. H. STEWART.

I am decidedly in favor of organizing the proposed "United States Honey-Producers' Association." The truth is, that something must be done that will effectually protect the interests of honey-producers, or they will be compelled to go out of the business. A man may keep a few bees in connection with some other more lucrative business, and be laying up every year something more than the cost of living from his entire business, and not know whether the production of honey is profitable at the market price or not.

If a bee-keeper is engaged in the rearing of queens, or furnishing bee-keepers' supplies, and having a brisk trade, he may be saving some money, but if he were to leave off all other branches of business, and make the production of honey a specialty, and have to take our present chances for a market, he would find it very hard to support a family in a respectable and comfortable manner.

It will be remembered that I have before stated in this paper that our honey should be handled only by commission men that were approved, or chosen by bee-keepers; and that it would be the business of those commission men to keep well posted as to the market value of honey in all parts of the civilized world; to know what rates of freight could be secured, and that they should keep the bee-papers and bee-keepers posted in the matter; thus enabling us to ship our honey direct to the best markets. These commission men should also have a good understanding with each other, so that a surplus that may be found in one market may be forthwith shipped to another that is not well supplied.

How is it now with the honey market? Not one bee-keeper out of a hundred that ships his honey to the great markets, has ever seen the man to whom the honey is sent. We know not, and have no means of knowing, whether the merchant is responsible or not; or whether he is honorable or dishonest. Again, let us suppose that a merchant reports that my honey is sold at 6 cents per pound. How am I to ever know for a certainty that it was not sold for 10 cents per pound? I can do nothing about it. Yet this is not all. Many a poor, hard-working bee-keeper has shipped away as best he could, his entire crop, and never got one cent in return!

Much has been said about home markets for honey. It is true that a given quantity may be sold at home, but to talk of us all disposing of a good crop near home, is utter nonsense! Honey is mostly produced in the rural districts, and those who use it are mostly in the towns and cities, and the product *must* be carried to the consumer.

Here in the West is in operation an organization called the "Farmers' Alliance," and farmers here in Dakota can get, at the present date, 7 cents more per bushel for wheat from the "Alliance," than from merchants that are shipping to commission men in the large cities. Farmers that are in want of immediate cash, are allowed to draw a portion of the worth of their crop from a fund kept for that purpose by the "Alliance," and the balance when the wheat is disposed of. This would be a good arrangement with our proposed honey-producers' association.

Some propose to discontinue the publishing of the honey-market reports for commission men of the cities. I would say that if we have our own salesmen in the cities, then no honey would go into the hands of the former commission men, and they would have no reports to publish; but our own salesmen would give us reports that would be valuable.

How easy it is for the present commission men to "put their heads together" and report that extracted honey is worth only 6 cents, and all agree to get all they can from consumers and only report to the producer, "sold at 6 cents!" It is very plain to me that the commission men are now fixing our wages, which is all wrong! and in this, as in all other important matters, the "fittest will survive." If our fraternity has less brains than our present commission men, then we must "perish;" but if we have enough common-sense to do our own business in a proper manner, then we may yet survive.

Kimball,♀ Dak.

For the American Bee Journal.

Items in Bee-Keeping.

W. H. STOUT.

Some years ago (say six or eight), after reading many "gushing" articles on bee-keeping and its profits, I started in, expecting from the flattering reports to be rich enough to retire in about two seasons; but I was doomed to disappointment, and after the other years added I fail to see that my wealth has increased to any great extent in consequence of keeping bees.

ALSIKE CLOVER FOR HONEY.

But I have it now, as I noticed in some bee-periodical that an acre of Alsike clover will yield 500 pounds of honey in a favorable season. I have now 25 acres seeded with Alsike, which ought to make 12,500 pounds, which, even at the present low prices, ought to net a clean "thousand." I have 40 colonies of bees which contain (by estimate) 15,000 bees each, or 600,000 bees; requiring each one to store only ⅓ of an ounce, and they must be lazy bees, indeed, that cannot gather above what they need to the extent named.

If this catches the eye of some speculative individual, I wish to state that a liberal discount will be made for cash on the prospective honey crop.

BEE-LEGISLATION.

In regard to bee-legislation, suggestions are made, and some advocate taxing bees and getting them recognized as personal property. In this State we can keep chickens, ducks and geese without being taxed, yet they are recognized as personal property, and why any one should be anxious to pay taxes on bees, when pigs and poultry are free, is not very clear!

HONEY-PRODUCERS' ASSOCIATION.

So also in regard to forming a honey-producers' association; it is perhaps possible to regulate the price of honey, but scarcely probable, as there are too many to unite for the purpose, and we Pennsylvanians are from principle opposed to combinations, monopolies and pools, since we who are out of them have to pay dearly on coal, coal oil, and other things controlled by such combinations, reaching far into other States, and regulating mainly the prices of necessaries, and not luxuries, like honey.

If the articles could be dispensed with, the combinations would soon be "busted;" but honey can be dispensed with, and the prejudices already existing are sufficient, without adding "monopoly" to the weapon of bee-keepers' enemies.

MY LOCAL HONEY MARKET.

Before this year I had the honey market in this vicinity almost to myself, but now the stores are full at low prices, with only little demand, simply because wages are low and business was dull, but shows signs of revival.

As I have no honey to offer, owing to the light crop last year, I let them sell all they can, brought here from other States, but if I succeed in producing any surplus, I mean to have this market, as legitimately mine, and no family shall be missed in canvassing for the sale of my honey when the proper time comes.

By working my home trade I have always succeeded in disposing of my crops at fair prices, and I think I can, by saving commissions and freight, make a little more out of my product than others at a distance.

Pine Grove,○+ Pa.

For the American Bee Journal.

Swarms Locating a Home.

GEO. POINDEXTER.

When people "go West," some have a home located, and others stop and look around for a home after they arrive.

So it is with bees—some have the home located, and the hollow or hive cleaned up before leaving the parent hive; others leave the hive not knowing where they are going, and fly until they alight on some bush or tree, and then they begin to look for a hollow or hive, sending out spies from the swarm in every direction to discover the most favorable place. There the bees will continue to come until everything is clean; then the main swarm is notified, and all come off the tree and follow the house-cleaners direct to their new home. After the swarm has left the tree, back comes a lot of spies, only to find themselves alone.

Some swarms remain where they alight, and if a home is not found in a short time, being full of honey they start combs, and remain there until Jack Frost drives them into winter quarters.

Kenney,⊙ Ills.

Local Convention Directory.

1887. *Time and place of Meeting.*

May 13.—Sheboygan County, at Hingham, Wis.
Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

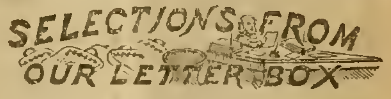
May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec. Cherry Valley, Ills.

May 26.—West Lake Shore Central, at Kiel, Wis.
Ferd Zastrow, Sec., Millhome, Wis.

May 27.—Darke County Union, at Greenville, O.
J. A. Roe, Asst. Sec., Union City, Ind.

Dec. —.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.



SELECTIONS FROM OUR LETTER BOX

Removing and Renewing Brood-Combs.—Chas. Hill, Mt. Healthy,♀ O., writes:

I have read the answers to Query, No. 409, but none who answered seem to have used my method of cleansing old brood-combs. It is very simple, and consists only in using them in the second story for extracting combs. Old brood-combs do not yield much wax, but the oldest and blackest combs, after being used for extracting one season, will be as clean and fresh as new ones; and hence there will be no need of having new combs.

The Great Drouth in Texas.—J. M. McDaniel, Peoria,⊙Tex., on April 25, 1887, says:

Bees have done well here this spring, and the prospects are favorable, provided we can have sufficient rain. The drouth that has prevailed in central and western Texas for the last two years, has been very disastrous to bee-men. We have had some rain lately, which would be sufficient, but for the fact that the drouth has penetrated deep down into the earth. Our chief source for honey is from horse-mint, which was almost a failure last year, and there is a bountiful supply this year. It does not bloom until June.

Compelling a Swarm to Cluster.—Dr. A. B. Mason, Auburndale,⊸ O., writes thus on May 2, 1887:

My bees have been out of the cellar 8 days only, and are in splendid condition, some of the colonies having built quite large pieces of new comb. The last 3 weeks have been quite cold. Yesterday the temperature was 72°, being the warmest day for some time, and the bees had a regular jubilee.

A few days since, a friend was spending the day with me, and asked if I knew of a good way to make a swarm of bees cluster quickly. I told him that I knew of nothing better than to shoot sawdust among them, as told me by H. D. Cutting, of Michigan. He then related the following incident: His father kept bees in Westchester county, N. Y., and 60 or more years ago (when the narrator was about 15 years old) a swarm came out and started to leave, and an older brother shot into it with a shot-gun and it alighted immediately. Two or three days after, the same bees swarmed out of the hive they had been hived in, and circled around, going higher and higher until nearly out of sight A clap of thunder coming just at that time, the swarm dropped to the ground, alighting within a short distance of the former place of clustering. They were again hived, and in two or three days more they came out again and took a "bee-line" for a house 10 miles away, and went directly into a knot-hole in the side of the house, being the fifth swarm that was seen to go into that knot-hole that summer. The bees occupied the spaces between the chamber floor and the ceiling below. When winter came the floor was taken up, and several barrels of honey were taken out. The foregoing seems like a pretty big story, but I have known the narrator several years, and have never known his word to be doubted.

Losses in Wintering.—H.M.Seeley, Harford,♂ Pa., on April 30, 1887, says:

I had 4 colonies last fall, and have 4 now, 3 strong and 1 weak, the latter being caused by the mice getting into the hive. I have a record of 770 colonies in the fall, of which there are now alive 381 colonies. Some bee-keepers lost all they had.

Death of an Old Subscriber, etc.—J. E. Boyles, Nelsonville,⟜ Ohio, on May 2, 1887, writes:

My father, T. M. Boyles, died last fall, and it leaves me in charge of the bees, with a limited experience. I have sold some, and have 35 colonies now, the most of them being in good condition. Father had kept bees about 40 years, was quite successful, and was without a total loss at any time from the first. He had taken the AMERICAN BEE JOURNAL during nearly the whole time of its existence, and was *very fond* of both his bees and the JOURNAL.

Bees doing Well, etc.—W. Mason, Fillmore,⊸ Ind., on April 28, 1887, says:

A neighbor of mine, who commenced keeping bees two years ago under my supervision and instruction, has been very successful both in summer and winter management. He had a colony in March, during a warm spell, that acted as though it was swarming. On looking at the entrance of the hive, he saw a queen dead, and looking a little longer he found another queen about dead. He returned her to the hive, and the bees returned again. He saw nothing wrong after that, until this week he found no brood or the appearance of brood, and the colony was somewhat dwindled. He put in two frames of brood and bees, and awaited results. This was a colony that had cast 2 or 3 swarms, consequently the queens were young. Whether they were improperly wintered, or whether it was a case of superseding, and they destroyed both queens, I do not know. Bees are doing well, although the weather is very changeable. We had considerable snow on April 1. Plums and pears are in full bloom, and bees are working hard on them.

No Loss in Wintering.—J. N. Ginn, Brooks,♀ Maine, on April 27, 1887, says:

Spring here is unusually late. The snow is deep in the woods. The roads are a mixture of snow-drifts and mud falling in where the frost goes out. We had fine weather from April 19 to April 23, a few poplars blossoming so bees brought in pollen. Since then the weather has been bad; last night it rained like a flood. My 50 colonies of bees have wintered without the loss of a single colony, in the cellar, and most of them are there yet. I Shall put them out as soon as "Old Sol" shows his face.

Working with a Will.—H. J. Rogers, Stanard's Corners,♀ N. Y., on April 28, 1887, writes:

I have kept bees for 5 years, commencing with one colony in a box-hive. Last spring I had 36 colonies, and increased them to 52 during the season. Of these all have wintered finely except two, one of which was queenless last fall, and the other had the diarrhea. I first found sealed brood on April 1. The combs are now well covered with young bees, and the bees are working with a will. I have fed them since March 15, although there was plenty of honey in most of the hives. My surplus crop last season was 2,800 pounds of comb honey. With us the season was dry, and most of the honey came from raspberry in June.

Expecting Early Swarms, etc.—Wm. Ford, Marshalltown,⊙ Iowa, on April 30, 1887, writes:

I put 25 colonies into the cellar last fall, and on March 22 I took out 22 strong colonies and one that was weak. The two that died were queenless. The temperature of the cellar ranged from 40° to 45°. All are breeding very rapidly. I spread the brood-nest as directed by G. M. Doolittle, in his pamphlet called "The Hive I Use." My bees carried in the first pollen on April 2. Drones are flying now every day. I expect to have early swarms. The apple blossoms will be out in a day or two. I think we will have a good honey season this year. I am experimenting with a new kind of entrance-block to stop robbing. It works like a charm so far. I will report and give a description of it later.

Encouraging Prospects.—R. B. Woodward, M. D., Somerset,⟜ Ohio, on April 27, 1887, writes:

All of my 18 colonies of bees wintered finely on the summer stands. I have heard of no losses in this section from persons who follow the modern methods of preparing their bees for winter. I have Italians, Syrians and Cyprians, and I see no difference in their wintering, but the Syrians and Cyprians are rearing brood more rapidly, and have drones flying now. The clover is looking well, and plenty of fruit bloom and locust is near at hand. The prospects are encouraging for an excellent honey crop in this locality.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—

BEESWAX,—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is improving.

BEESWAX.—23c.
Apr. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4@4¾ cts. Comb, white, 7@13c. Market firm.

BEESWAX.—Scarce at 19@22c.
Apr. 4. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.

BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20c. for prime.
May 7. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@9c. Extracted, white, 4½@5c.; light amber, 3¾@4¼c. Market quiet.

BEESWAX.—19@22c.
Apr. 16. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—We quote: Finest white 1-lb. sections, 12@12½c.; choice white 1-lbs., 11@12c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; good white in kegs and barrels, 6@6½c.; dark, 4 to 4½c. Demand good and market firm.

BEESWAX.—25c.
May 4. A. V. BISHOP, 142 W. Water St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Apr. 21. C.F.MUTH & SON, Freeman & Central Av.

* * *

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it, the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for $1.50.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

A Cheap Smoker.—"Martinsville, Ohio, April 11, 1887.—Messrs. Bingham & Hetherington, Abronia, Mich.: Enclosed find $2.50 for two Large 2½-inch Bingham Smokers (wide shield). They are for my neighbors. I have one of the Bingham Smokers that I have used six years, and it is as good as ever. Send ½-dozen rates.—Respectfully, AMOS R. GARNER." 17A4t

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

Advertisements.

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.,

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"THE PRODUCTION OF COMB HONEY."

The "Introduction" gives a concise sketch of the author's experience in producing comb honey, and explains how the book came to be written. The first chapter, "Securing workers for the harvest," sets forth the advantages of cellar-wintering combined with *spring* protection. "Aside from food in abundance, *warmth* is the one great thing needed to promote *safe*, early breeding." The cheapest and best method of securing this is given in detail. Under the head of "Supers" the author names his favorite surplus case, and gives reasons for the preference.

The next topic is that of "Separators." Their advantages and disadvantages; the conditions under which they are needed and the methods necessary to their abandonment are briefly told. Then "Sections" are taken up; the good and bad qualities of the different kinds mentioned; the time for putting them on given and the advantages of having them filled with comb, especially in the spring, fully explained.

The next three pages are devoted to "Tiering-Up," in which the operations of this system are explicitly described, showing the ease with which it enables a bee-keeper to handle a "honey-shower." Then follow: "Hiving swarms on empty combs; Hiving swarms on founadtion; and Hiving swarms on empty frames;" in which the question of *profitably* dispensing with full sheets of foundation in the brood-nest when hiving swarms is made perfectly clear, and thorough instructions given for its accomplishment.

"The building of drone-comb."—This appears to have been the great stumbling-stone in the road to success with starters only, hence six pages are given up to this subject. *Why* bees build it, is well considered, and the way to prevent its construction made plain. The next two pages are used in answering the question, "What shall be used in the sections?" That is, when shall foundation be used, when combs and when shall the bees be allowed to *build* the combs. Under the head of "Secretion and utilization of wax," attention is called to the fact that we have been losing a *big* thing by not utilizing the natural wax secretion. Illustrations are given, and suggestions made.

The "Conclusion" requests "the freest of criticism," and cautions all not to adopt the methods advised upon too large a scale at first.

☞ Price of the Book, **25 cents.** 19Atf

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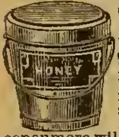

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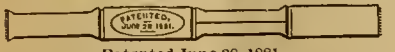
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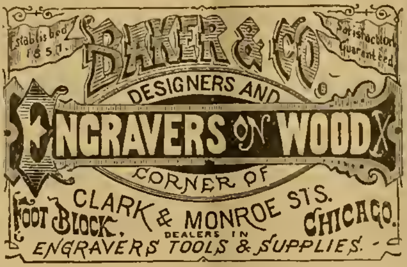
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Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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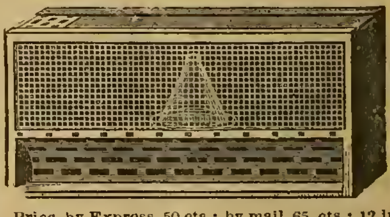
Alley's Drone and Queen Trap.



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AND BEE-KEEPER'S ADVISER,

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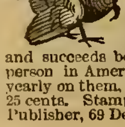


By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL, Publisher, 69 Dearborn St., Chicago, Ill.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. May 18, 1887. No. 20.

Sunny May Day, with whitest clouds,
  And twittering swallows high in air,
A timid zephyr from the South,
  And fragrance, fragrance everywhere.
Young grass, pink buds ; *all bees astir* ;
  With plow, afield the swain I spy,
And, in her door, the young, good wife
  To baby singing lullaby.
—C. *G. Blanden.*

Fanny Field's "Practical Turkey Raising" is a new book which tells all about rearing turkeys from the egg to the mature bird. If you want to make it profitable to rear these birds, send 25 cents to this office for the book.

Rain came very opportunely last week in this locality. Nature responded promptly to the baptism, and appears in its gayest dress, flowers decking field, hillside and valley, and the bees are apparently enjoying the anticipation of a plentiful supply of the nectar which they so much enjoy, gathering and hoarding up, in their waxen cells of virgin comb.

Bees Roaring in Winter.—On page 297, Mr. Demaree proposes that those interested in the settling of this question, should write a postal card to the BEE JOURNAL to be tabulated and published, giving the result of their actual knowledge or experience on the subject. By an oversight, this was omitted last week. We now approve of the method proposed, and will give the letters space and attention. Send them in *at once.*

Royal Jelly.—A correspondent desires us to explain the composition of royal jelly and its uses and effects upon the larval-queen. At the quarterly *Conversazione* of the British Bee-Keepers' Association held in London, on April 20, 1887, Mr. T. W. Cowan, editor of the *British Bee Journal*, gave a very interesting address on this subject, which will be found on page 310. It will be read with more than ordinary pleasure by progressive apiarists.

Be Patient !—How often do we find some impetuous soul growling about the delay of receiving goods ordered, when there has not been sufficient time allowed to transport them from the dealer to the customer ! Quite often, even before the complaint has had time to get to the dealer, the purchaser has received the goods, then he feels badly (if he has any conscience) for having used the unkind words, and has then to sit down and write an apology.

These things are aggravated, when in his impatience he has also written a complaint to the bee-paper where the dealer's advertisement appeared, and leads to still greater complications !

We now have a case in point. A purchaser wrote to us a long and bitter complaint, using very uncomplimentary language about the delay of receiving goods from one of our advertisers. We wrote to the advertiser and obtained a full statement of the case—saying he had positive proof that the goods were at the station as ordered by the purchaser, and the railroad company had notified the shipper as well as the consignee of the facts.

We wrote several letters to both parties, as there was also a financial dispute about it, and the upshot of the whole is a letter just received from the complainant, stating that he withdraws all complaints against the dealer, who has made a settlement in full with him.

Now, we protest against such impetuousness and carelessness ; as well as against burdening us with complaints against our advertisers, which are merely the result of carelessness on the part of the customer, or a want of exercising due patience for the arrival of the goods ordered. We have enough to do with our legitimate business, and we have no relish for such unthankful and unneccessary work.

Then, again, many mistakes occur from not writing names and addresses plainly. We have a letter before us now, with the name of the writer so indistinct that we cannot read it at all. Another, with an order for goods without any attempt to give the name of the writer. Such carelessness is inexcusable, and is the cause of much confusion.

Small Loss in Winter.—The *Leader*, of Arcadia, N. Y., gives the following item about its apiarist :

> On Nov. 19, 1886, E. D. Keeney put into winter quarters 316 colonies of bees. On May 2, 1887, after their confinement of 165 days, he took out 311 colonies, all in fine condition, there being a loss of less than 2 per cent. We doubt very much if there has been its equal in wintering in the State.

The losses have been very light both in winter and spring, and if the weather continues favorable, a good crop of honey may be expected.

Frank Leslie's Sunday Magazine for June completes the twenty-first volume of this much esteemed family visitor. The number is full of interesting contributions, and is as usual, beautifully illustrated. Among the important articles is one entitled : "A Visit to the Azores," which is accompanied by ten illustrations. Many miscellaneous articles of merit help to make up a number which ought to be welcomed heartily everywhere.

The Century Plant.—From California we learn that bees work on the flowers of *Agave Americana*, commonly called the century plant, and seem to be in great glee while thus occupied. It is a misapprehension that this plant has to be a hundred years old before it blooms. It is a common occurrence to see them bloom in California when they are from 10 to 15 years old. When once the flower stalk or shaft puts forth its asparagus-like head it shoots up rapidly, so that in a few weeks it is 25 or 30 feet high. To those who have not seen the plant, we do not know how we could better describe it than to say that it looks something like the Yucca mentioned in another column, with this exception, however, there are not so many leaves, and they are much more fleshy ; the flowers are not borne in whorls as in the Yucca, but the shoots starts out like those of the Yucca, and from them again starts out smaller shoots taking about the same curve as the main one. On the latter the flowers appear. The main flower-stalk has the appearance of a huge lamp-post, and the flower stems look like chandeliers, and when in bloom the bees, when humming about its flowers, reminds one of moths flitting about the lights of a chandelier.

It is pretty certain that in California it will never be considered as a honey-plant of much importance, but we suppose that in Mexico, where they grow by the acre, it is valuable for the bees. In that country, we learn that by tapping the plant, it yields profusely of its sap, which the natives ferment into a beverage, and after partaking thereof, become good-natured and jolly to an inordinate degree.

Bees were Declared a Nuisance by the City Council of Arkadelphia, Ark., on May 5. This matter was referred to on page 279, where it was stated that some crank had charged the bees with eating up his young ducks, as well as eating up the peaches ! ! In the published report of the City Council meeting, the following occurs :

> A resolution, introduced by Councilman Spencer, was adopted, to the effect that the rearing of bees within the city limits was a nuisance, and an ordinance was accordingly passed declaring the owning, keeping or rearing of bees in the city limits to be unlawful, and notifying all persons keeping or owning bees in the city to remove the same within thirty days from the passage of the ordinance, and fixing a fine of not less than $5, nor more than $25, for each day of refusal to so remove them.
>
> A resolution also passed, instructing the City Marshal to notify all bee-keepers of the passage of the foregoing ordinance, and of their duty under it.

Major J. L. Witherspoon, ex-Attorney General of Arkansas (who stands at the head of the Bar of the State), has been employed to attend to the matter on behalf of the bees. He "enjoined" the City Council on the 9th inst., and the trial probably came up in "Chancery" on Monday, May 16. The National Bee-Keepers' Union backs up Mr. Z. A. Clark to fight the case on its merits. More anon.

The Kenton Bee-Hive is the name of a new monthly bee-paper of 12 pages published by Smith & Smith, Kenton, O., at 50 cents a year. The first number is on our desk, and makes a good appearance.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Wintering Bees under a Kitchen.

Query 418.—Mr. A wants to try wintering his bees in his cellar, which communicates, by a stairway, with the kitchen above. 1. Will it be in any way a detriment to the health of his family to have his bees in the cellar? 2. How large a room must be partitioned off for 30 colonies? 3. Will it be any benefit to whitewash the room before putting in the bees?—H. D. S., Pa.

1. No. 2. 10x10x6 feet. 3. Yes.—J. P. H. BROWN.

1. It might prove to be a sad affair. 2. Large enough to contain them; and larger for future wants.—C. W. DAYTON.

1. No. 2. Ten or twelve feet square will do. 3. It would if there was a bad odor in the cellar.—G. L. TINKER.

1. I think not. 2. Large enough to get them in handily. 3. I think not.—W. Z. HUTCHINSON.

1. I think not. 2. It will depend upon the size of the hives. 3. It will be no detriment to whitewash it.—H. D. CUTTING.

1. I should say not, but I am not posted on hygiene. 2. I should not partition it off at all, as the whole cellar is as good if the temperature is right. 3. I do not see why it would.—G. M. DOOLITTLE.

If the bees are kept dry and in good health, I should have no fears of their presence under the kitchen doing any harm.—G. W. DEMAREE.

1. No, if decent ventilation is given. 2. As large as will allow of storage, depending upon the size of the hives. 3. It is always a benefit, sanitarially, to whitewash a cellar.—J. E. POND.

1. No. 2. Let him put the bees in, and partition the space afterwards with a heavy curtain, old carpets or anything. 3. It will not injure, but it is not of any particular benefit.—DADANT & SON.

1. No, if the air in the cellar is good as it ought to be for the bees. 2. It depends upon the size of the hives. I should want it large enough so that when the hives are piled up, I could get at the front of each. 3. I think it might.—C. C. MILLER.

1. No. 2. I cannot say. It depends. The temperature must be kept at 45° Fahr. 3. No.—A. J. COOK.

1. It would to some, but probably not to him, as there are very few persons who are injured by breathing the odor from bees. 2. Two or three times as large as the space occupied by the hives. 3. I guess it would not do any harm or good to the bees.—JAMES HEDDON.

1. Probably not, if ventilated. 2. Hives vary in size; a sure plan would be to put in the bees first, and then partition them off; but why not have it large enough for future increase? 3. Any cellar may be whitewashed to advantage, but so far as the bees are concerned, it would make no difference.—THE EDITOR.

Dividing Colonies—Locating the Queen.

Query 419.—In dividing colonies for increase, or building up colonies in the spring, on the evening before transferring a frame or frames from hive to hive, should I place such in an empty body over the centre or side of the brood-nest, and leave them there all night, and put them in other hives before 9 o'clock in the morning? Would I be in danger of taking queens along? 2. What is the *situs* of the queen in a hive, or on what frames may she be found at different times of the day?—W. B., Iowa.

1. No. Why? 2. There is no rule as for that.—JAMES HEDDON.

1. Some, but very little. 2. There is no rule. Some queens are easily disturbed, and when disquieted they often pass rapidly from one to another.—A. J. COOK.

1. No. 2. In the morning when it is cool, the queen will usually be on one of the middle frames of the brood-nest; but in the afternoon when warmer, she is oftener on one of the outside frames.—J. P. H. BROWN.

I would rather make the colonies in the evening than in the morning. Your plan is too much bother for me. Find the queen, then you will *know* where she is. That is my rule.—C. W. DAYTON.

It is always easy to find queens in dividing colonies, and to place them where wanted. The queen will nearly always be found on the frames of brood. It is even rare to find her on the sealed honey of a brood-comb. If the hive is carefully opened, always look for her first on the combs in which eggs are seen.—G. L. TINKER.

1. You would be in danger of making a complete failure of the whole business. 2. When you make a business of producing honey on business principles, you will not care on what frame she is just at each particular moment.—H. D. CUTTING.

1. I hardly know what you would gain by so doing. It would depend upon existing conditions whether the queen might be on one of the frames. 2. I do not know in what part of the brood-nest to look for a queen.—C. C. MILLER.

1. Your best way would be to find the queen, for she might not leave the frame by your proposed plan, and by using it the brood might be in danger of being chilled. 2. From 10 a.m. to 4 p.m. the queen is usually on one of the outside combs of brood, but not always.—G. M. DOOLITTLE.

1. I do not understand the object of leaving the frames in such a position over night. Queens must be looked up before removing the frame. 2. I have seen it stated that the queen made the circuit of the brood-nest once in 24 hours, and at such and such hours, she might be found in such and such places. I have never noticed anything of the kind.—W. Z. HUTCHINSON.

1. I can see no reason for so doing. My advice is to adopt the nucleus plan of increase; the plan I made public some years ago, and which I believe is now generally used for increase. By that plan the maximum both of honey-gathering and brood-rearing is constantly kept up; this cannot be done by ordinary division. 2. This is one of those impracticable questions that "no feller" can answer. Ordinarily she will be found on or near empty cells.—J. E. POND.

1. Before removing frames of brood with adhering bees, I first look up the queen so as to make no mistakes. When I divide a colony with the view of making a new colony of one of the divisions, I do the work early in the morning, and at once. When selecting combs to make nuclei, or new colonies, I take such as out of which the young bees are cutting or hatching, as we say, in great numbers; in this lies the secret of forming nuclei or new colonies. I confine the bees to their new quarters the first day, releasing them just after sunset. 2. It depends upon the condition of the brood-nest. She will ordinarily be found wherever her duty leads her. If I always knew the precise condition of the brood-nest, I could guess pretty well where she might or might not be.—G. W. DEMAREE.

1. No. 2. Any one can guess, but no one knows. When you find the queen, you will know where she was each time, and probably not twice in the same place.—THE EDITOR.

Number of Frames for Comb Honey.

Query 420.—How many frames of the Gallup size would be best for producing comb honey, where the honey harvest continues from the last of May until the last of July, with generally a fall crop?—B., Iowa.

Nine frames—G. L. TINKER.

About 12.—J. P. H. BROWN.

About 9 in the spring, or before swarming; and 5 or 6 after.—W. Z. HUTCHINSON.

I have never used the Gallup frame, but I should think about 9 frames.—H. D. CUTTING.

I use 9, and consider them ample for any locality. With new swarms I use only 5.—G. M. DOOLITTLE.

We say 13 or 14 frames. Make your hives the same size as Doolittle's. See his pamphlet on "The Hive I Use."—DADANT & SON.

Ten until the harvest begins; 4 during the harvest; and 10 after the harvest, is my practice.—C. W. DAYTON.

Twelve frames before swarming, and 6 afterwards, as a rule. Comb honey production without the contraction system, would be to me like the play of "Othello" with Othello left out.—JAMES HEDDON.

I should prefer 12 frames, but should reduce—*a la* Heddon—to 7 or 8 when I added sections.—A. J. COOK.

I do not know. I use the standard Langstroth. Mr. Doolittle can answer understandingly, as he uses the "Gallup frame."—J. E. POND.

I think Mr. Doolittle uses Gallup frames, and I should place confidence in his answer. I do not think any of us yet know all we might about this matter.—C. C. MILLER.

I would want not less than 12 for such a honey harvest as you seem to have. By using a hive of the largest size, you could have it large or small, to suit the conditions, by simply using division-boards. A 10 frame Langstroth hive, properly made to "tier up," would just "fill the bill," if I had to make the choice for you.—G. W. DEMAREE.

Probably about 9 or 10 frames.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊶ east; ⊷ west; and this ♂ northeast; ⌐○ northwest: ○⌐ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Introducing Queens—Making Bees Stay

G. M. DOOLITTLE.

As the time of year for introducing queens is at hand, I wish to give a very simple plan of doing the thing, and one which so far has proved successful with me in every instance. If I had a very choice queen coming a long distance to me through the mails, I should use the "nucleus box" as described in a back volume of the BEE JOURNAL; for with this I do not consider a failure possible, although out of the thousands who have tried that plan, one has reported a failure with one queen. However, the nucleus-box plan is not quite as convenient as the one about to be described, nor can the whole operation be done at the same time as can this. The plan I wish to speak of is as follows:

Go to any hive from which is desired to remove the queen, and smoke the colony only enough to keep the bees quiet during the finding and removing of the queen, after which the frames are to be put back, and the hive closed. Before disturbing the hive at all to find the old queen, the bee-keeper should get the one to be introduced and have her with him in a cage. Having closed the hive, blow smoke into the entrance until the bees are heard roaring greatly, which shows that the fight is all taken out of them, when the smoking is to cease for a moment, and then pound on top of the hive with the fist about ten times. Now blow smoke again as long as pounding continued, when the bee-keeper is to pound the same number of strokes again, and so on until the smoke has been given five times, and the same number of poundings are done.

In doing this pounding, only strike with force enough to thoroughly jar the hive, which is easily done without at all hurting the hand. As soon as the last pounding is finished, unstop the cage having the queen to be introduced, and hold the mouth of it to the entrance of the hive, when she, hearing the roaring of the bees inside, will immediately run in. As soon as she is well inside of the hive, give them another liberal smoking, and the operation of a direct and safe introduction is finished. If in time of scarcity of honey, this should be done about sundown, otherwise robber bees would gain access to the hive while the bees were in a defenseless condition. In fact I prefer to perform the operation near sundown at all times.

If all has worked as it does with me, the queen will be found laying the next morning, just as if that had always been her home.

My theory regarding why the plan is so eminently successful is, that the bees realize that they have had a "terrible shaking up, the same as would happen in their primitive state if the tree containing their home should be blown over. Their first anxiety then, after coming to their senses, would be for the queen. Well, before coming to their senses, in this case, the queen is run in and followed by smoke so that she assumes the same scent that the bees, hive and combs smell of, so that when they find her they do not realize that a change has been made.

MAKING DRIVEN SWARMS STAY.

Many seem to suppose that when a swarm of bees is driven from a hive, that the driven part must be put on the old stand, placing the old hive and contents on a new stand, otherwise the driven bees would mostly go back to the old hive. With no precaution this would undoubtedly be the case, but it is a very easy matter to make a driven colony of bees stay wherever one wishes. I often make swarms by driving, and as some of the readers of the BEE JOURNAL, who can be with their bees only in the morning or evening, may wish to do the same, I will describe how I manage. It is thus:

Go to any hive whose colony is about ready to swarm, and if in a box-hive, drum out the bees in the way given in any of the books while treating on transferring, but if in a movable-frame hive, as they will probably be, proceed as follows: Open the hive to see if there is plenty of unsealed honey, and if not, shave off the cappings of the cells along the top-bars of the frames, so the bees can easily fill themselves with honey, finding the queen at the same time and caging her on one of the frames. Now close the hive, and after blowing smoke in at the entrance, pound on it with the fist, as I stated in introducing queens, except that it is to be kept up for three or four minutes, with no smoke except the first.

As soon as you have finished pounding, place a box and an inch board close to the hive; or, better still, have the box there to start with, when you are to open the hive and shake about three-fourths of the bees from the combs down in front of the box, into which they will readily enter. When you come to the frame having the queen, uncage her and let her run into the box. Having the queen and what bees you wish in the box, close the hive and take the box to the shade of some tree where it is to be left with the mouth or open side facing up and out, which is best accomplished by leaning it against something. Leave it thus for three-fourths of an hour, when the bees will be clustered the same as a swarm would be.

They can now be hived the same as any swarm, and will stay and work the same as if they had issued naturally. The old colony can be allowed to rear its own queen or have a queen-cell given them, the latter being preferred, as that does away with after-swarming.

If the bees are "drummed" from a box-hive, they are to be treated after they are in the box the same as the other. In some respects I like this plan for securing increase better than any other.

Borodino,⊙ N. Y.

For the American Bee Journal.

The Next Michigan State Convention.

At our last annual meeting at Ypsilanti, in December, 1886, the desire was expressed that our next meeting be held in conjunction with that of the State Horticultural Association, and preferably at East Saginaw, Mich.; though it was left optional with the committee to change place and arrange time, if to consummate the joint meeting it was found necessary.

The arrangements favoring this plan are as follows: Many of our members are also interested in fruit culture. Such an arrangement would enable them to secure the benefits of both meetings with the least expenditure of time and money. Again, many topics are alike interesting and important to fruit-men and bee-keepers; such as the relation of bees and fruit, bees as fertilizers, etc. Thus it would be profitable to have at least one or two joint meetings, in which both societies should take an equal part. Lastly, with both associations meeting in one week at one place, we could almost surely secure reduced rates on the railroads. Last fall the fruit-men accomplished this, though the bee-men failed. Such commutation induces larger attendance, as seen at our Flint meeting three years ago; and so adds to the value and interest of our discussions.

I am happy to state that the arrangements have been fully and most satisfactorily made. Both associations will meet at East Saginaw, Mich., the second week of December, 1887. The State Horticultural Society will meet Monday evening, Dec. 5, and close Wednesday noon, Dec. 7. On Wednesday afternoon, and possibly evening, there will be a joint session of the two societies. The bee-keepers will continue in session all day Thursday and possibly Friday.

In publishing its own programme, each association will give a brief abstract of that of the other association; thus each association will be very widely advertised.

The East Saginaw people will furnish a free hall; will secure reduced rates at the hotels, and, more than all, will give a royal welcome. All this with reduced railroad rates will aid to make this a meeting of unusual importance. A hearty invitation is extended to those of Ontario and other States, to meet with us.

Will other bee-periodicals and agricultural papers please copy this, or give a notice of the arrangements?

A. J. Cook, *Com.*

Read at the British Bee-Keepers' Convention.

Food of the Queen-Larva, etc.

T. W. COWAN.

There is an important question I should like to bring before the meeting, and upon which a very interesting discussion might be started. It has reference to the food of the queen-larva (royal jelly), the food of the other larvæ, and also with respect to the digestion of such food. I am now in a position to give some recent investigations which will, I think, clear up those points conclusively.

We have been taught for some time that the food which is given to the worker and others is partly digested in the chyle-stomach of the worker-bee; for this digestion, and the providing of this food, the young bees act as nurses. Dufour was one of those who taught this, although Swammerdam alluded to it before; and we have always accepted the idea that the larvæ were fed with this semi-digested food. Leuckart was also a partisan of this theory. However, when the glands were discovered, Leuckart thought he was not quite satisfied with this theory of semi-digestion, and he suggested that the larvæ were fed with a secretion from the different glands.

In the honey-bee there are four pairs of glands; three pairs in the head, that is, two pairs in the upper part, and one pair in the jaws, and one pair in the thorax. Leuckart supposed that these glands furnished the food for the larvæ as well as the food for the queens. Schiemenz, who was a pupil of Leuckart, was induced to take up and investigate the matter thoroughly. He did so, with instructions from Leuckart to examine specially the functions of these glands in relation to the food, and he published the result of his researches in 1883. I have his work with all the drawings. He went into the subject very fully indeed, and it is the most complete description of the glands we have. He came to the conclusion that the food was a secretion produced from the glands.

For some years since 1853 Schonfeld has been at work likewise on this subject. He described the digestive system of the honey-bee particularly in the *Bienenzeitung*, and his discoveries from 1854 to 1883. Below the honey-mouth (*Magenmund*) there is a neck which connects the honey-stomach with the chyle-stomach, and from this mouth into the chyle stomach there is a prolongation through which the honey and pollen passes from the honey-stomach into the chyle-stomach; and Schonfeld, by experiments and microscopical examination, showed that this internal prolongation could be turned inside-out or inverted so that the bee could disgorge the digested food from its stomach by way of the œsophagus into the cells.

These alleged discoveries were thought to be very singular by Leuckart, Fischer, Vogel, Dzierzon and others, but they continued to insist that the food of the bee was a secretion; some were going so far as to call it *Milchsaft*, or milk food.

Leuckart says that the food of the larvæ of the queen, workers and drones is exactly the same. But Leuckart, in 1858, discovered that the food of the larvæ of worker-bees was subject to some variation, that it was not always the same during the whole of its larval existence. For the first three days the food was liquid, and appeared like a secretion. After that pollen and honey were added to it, which could be detected by the microscope. The queen-larva, on the contrary, was fed with the same food throughout its larval existence, that is, from the very first day of the larva leaving the egg to the day it was sealed up; and he said it was owing to this that the queen was produced instead of a worker.

The weaning took place on the third day, and it was exactly at this time that the ovaries began to make their appearance in the female bee, and by changing the food in the case of a worker, this development was arrested and a worker produced, whereas by continuing the same food a queen was produced. The same took place with regard to the drone, except that of three days, the drone was fed on the same food for five days.

We have always hitherto been led to believe that this food was alike, at any rate during the first three days, and that the greater abundance given to the queen-larva produced the development more rapidly.

Dr. A. de Planta has been at work for two years in trying to settle the question by analyzing this food, and has had considerable difficulty in carrying out his investigations. Some idea may be formed of the magnitude of the work he has been engaged on when I say that he has had to operate upon 120 queen-cells, 4,000 drone-cells, and 10,000 worker-cells. I believe only one chemical analysis of the food has been made prior to this, namely, by Schlossberger in 1871. He took all the food he could get hold of, put it together and analyzed it on the supposition that the food was the same all through. Dr. Planta was not satisfied with that, and wished to settle the point by analyzing the different foods separately, and his chemical experiments have confirmed step by step the observations of Schonfeld, and have shown him to be right.

Dr. Planta analyzed the substances contained in the queen-cells, worker-cells, and drone-cells, and the result of these investigations showed, as regards the different ingredients of the different foods, the following proportions.:

Albumen........	46.5	⅌ ct. for queens.
"	50.16	" workers.
"	39.91	" drones.
Fatty Matters..	12.62	⅌ ct. for queens.
"	6.84	" workers.
"	7.85	" drones.
Sugar..........	17.90	⅌ ct. for queens.
"	27.65	" workers.
"	1.17	" drones.

The above tables refer only to dried food. As regards the water contained in each food, there is not a very great difference. The proportions are as follows:

66.64 per cent.	for queens.
71.09 "	workers.
72.75 "	drones.

These figures show that the food of the queen contains less water than that of the drones or workers; and I dare say all of you know that the food in a queen-cell is much stiffer in substance, and is able to stick to the top of the queen-cell hanging down and to support the grub.

With regard to albumen, you see the worker stands at the head, whilst in respect to fatty matter the queen is first, and the drones and workers in nearly equal proportions. In regard to sugar, the workers are first, then comes the queen, and the drones have very little indeed. Drones are the fewest in the hive, and I think we must not grudge them the small quantity of honey they take, seeing that they get so little sugar during their larval existence.

The figures I have given may not convey much to you, but with regard to richness of the food I may tell you that in 100 queen-cells there are 356 times more dry nutritive substances than there are in 100 drone-cells, or 232 times more than in 100 worker-cells.

Then Dr. Planta tried another experiment, namely, in order to judge upon an equal basis he compared the dry substance in 100 grammes of fresh food. In this he found that it contained 4·92 grammes more of dry nutritive substance than 100 drone-cells, and 3 26 grammes more than those of workers. Testing in every way the food of the queen, there can be no doubt that it is the richest and best from the commencement.

Now, if the food were a secretion similar to milk, it would always be the same, or at least it would vary to a very trifling expense; but as it varies as greatly as Dr. Planta has shown, and has chemically proved to be different in its composition, there can be no doubt that it is a digested food elaborated in their chyle-stomach, and that the bees at will vary the ingredients thereof to suit their particular purpose. They can voluntarily add the necessary ingredients, such as pollen, honey, and nectar, more or less diluted with water.

So far as can be ascertained there do not appear to be any particular bees set apart for the purpose of feeding particular grubs, but that up to a certain age the feeding capacity is the same in all cases. We suppose that the bees must have the voluntary power of supplying one kind of food or the other as may be wanted.

This subject is a very important one, because upon it, to a great extent, is based the rearing of queens. The question naturally arises, are queens that are reared by natural means as good or better than queens reared otherwise? Now, I always maintained, and I think I have good reason for maintaining, that queens should be reared from eggs, because they get the better food from the very first day when the eggs hatch. The analysis of Dr. Planta, and the conclusions he comes to, go a great way in favor of that theory.

Queens must be better if reared on the best food from the commencement. I have known queens started on larvæ four days old. If a queen-cell is started after the fourth day, there has been one day in which the development of the ovaries has been arrested, and she can never make a good queen. Also microscopically Dr. Planta has been able to show that the worker larvæ receive this digested food for the first three days, and after that pollen and honey; drone larvæ are reared after the fifth day; while the royal food is always a chyle food, and never has either pollen or water mixed with it.

I think I have now placed this matter before you as fully as I am able to do. It appears to me that we may now look upon this question as decided, namely, that the food is produced in the chyle-stomach of the bee, and is not a secretion. I do not wish it to be understood that the secretion of the glands has nothing to do with the food, because Schonfeld, Holtz, and others admit that the secretions from the glands are added to the chyle-food, but are not the actual food itself, which consists of digested pollen and honey. The results of the investigations referred to will be published in Germany in about a fortnight's time, and I hope then to be able to say something more on the subject in the columns of the *Bee Journal*.

It is supposed that the workers that became fertile had received an extra large proportion of rich food. Instead of being weaned at the proper time, the rich food had been continued to them beyond that period. If a worker were fed thus for four days, the organs would have one day's development. In an ordinary worker they were stopped on the third day.

For the American Bee Journal.

The Voice of Spring.

MISS EDNA A. THOMPSON.

Now we hear the voice of spring
In the song the blue-birds sing;
Hear the "humming of the bees"
Through the budding forest trees,
Going to and from the flowers
In the morning sunlit hours.

Watch the cleaning of the hive,
Where the busy workers thrive;
How they guard their little store,
From the robbers at the door;
Working on from day to day,
Stopping not to rest or play.

When the linden comes in bloom,
Then they work from morn till noon,
Thankful for the light or shower;
And obey their Sovereign Power,
Something as the human race;
Though, perhance, with better grace.

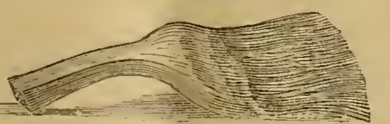
Clark's O.

For the American Bee Journal.

The Yucca or Spanish Bayonet.

W. A. PRYAL.

These plants are quite numerous on the mountains and foothills in the southern part of California, and when in bloom, their white crests can be seen for miles, towering above all else. The early Catholic missionaries, when they first came to California, called this plant "Our Lord's Candle Stick." W. W. Bliss remarks thus: —I have seen it stated that the bees gather large quantities of honey from this plant, but I do not think that this is the case, although I have seen bees at work on the flowers. The most important use of this plant to bee-keepers, is the brushes which are made from the leaves that grow at the bottom of the plant. These brushes are decidedly the best thing that has yet been discovered for brushing bees off from the combs in extracting; they are a vegetable fiber, soft and pliable, yet almost indestructable, and never come loose in the "handle," no matter how much they are exposed to the weather.



YUCCA BRUSH.

There are several varieties to be found growing through California, Arizona and Utah. There is one variety found in Arizona, and though not so stately as the above described, it is, nevertheless, more useful, as the fiber of it is now being made into paper of a very fine quality, which commands a high price in the market. We have not learned that it is yet to be had in large quantities in the market. Several other important uses are made of this last-mentioned variety.

North Temescal, o Calif.

For the American Bee Journal.

Cost of Cellar-Wintering of Bees.

W. Z. HUTCHINSON.

I believe that one of the unwritten laws of literature is, that no author shall defend his own works. I also believe that we bee-keepers are a law unto ourselves—we care more for truth than for some of the hair-splitting rules of authorship—and so strong is my faith in this belief that, in the conclusion to my little book, I announced that I should hold myself in readiness to explain and defend my views, or, if necessary, acknowledge my errors. I will now fulfil this promise.

First, I wish to thank my friends Clarke and Cook for having noticed my little book so kindly and so fairly. As one of the principal criticisms is that I have placed the cost of cellar-wintering at too low a figure, I will "explain and defend." Before doing this, however, let me show Mr. Clarke what good company he has. I have received a good, long letter from (and a sprig of orange blossoms) Mr. Poppleton, of Florida. After stating how completely his views agreed with mine in regard to the importance of spring protection, even going so far as to say, "I would no more think of trying to keep bees without spring protection in the short, changeable seasons of northern Iowa or Michigan than I would without movable comb hives," he also says: "Ain't you a little careless or wild in the statement that 'the saving of stores in cellar-wintering will pay for the expense four times over?' Compared with unprotected, out-door wintering, you are correct; but so far as my experience goes, the difference in the consumption of stores between the cellar and a thoroughly-packed colony out-of-doors, is too small to be considered. The only reliable statistics that I have seen upon this subject are those published by A. G. Hill, of Indiana. If I remember correctly, these tables cover several years of experiments, with an average of say 50 to 75 colonies each year; and the average difference between cellar and out-door wintering was, I think, not far from only one pound per colony. This, of course, applies only when hives are properly protected; not where the work is only half done."

W. F. Clarke says: "Let Cyula Linswik, A. G. Hill, A. I. Root, and other successful out-door winterers give us their figures, and I do not think they will sustain this strong assertion."

While Cyula Linswik has been successful in wintering bees out-of-doors, her experience in cellar-wintering is, I believe, limited to a single experiment with only one to two colonies; hence she has been unable to make any comparisons upon the point under discussion. Of course if her bees consume but little if any more honey than the cellar-wintered bees of somebody else, such testimony would be in point, *provided* other things were equal; but there are so many varying circumstances that, to my mind, the only satisfactory evidence is that obtainable by comparative experiments in the same apiary, similar to those made by Mr. Hill.

As we approach the equator less protection is needed by bees, until a point is finally reached where chaff hives and cellars never come. Before this point is reached, however, there is another point where *some* protection is needed in winters; where chaff hives and the various kinds of packing are probably a sufficient shield against the cold; and by means of which bees can be wintered to better advantage, and it is likely, with no greater consumption of stores, than in a cellar; but it must not be forgotten that Messrs. Root and Hill live nearer this point than do Mr. Clarke and myself.

I met Mr. Root last March at the home of Prof. Cook, and as the wheels rattled over the frozen earth, and the frosty air nipped our ears and noses when on our way to the station, Mr. Root exclaimed: "Well, I declare, if this is the kind of weather you have up here, at this time of the year, I don't know but I, too, *should favor cellar-wintering* if I lived here. Why, the frost has been out of the ground at our place for two weeks." I will admit that the weather *was* unusually severe just then, but it was two weeks later before the frost was out of the ground at this place.

At the Michigan State Bee-Keepers' Convention held at Lansing in 1884, the question of "Saving honey by cellar-wintering" was thoroughly discussed; and the weight of the testimony indicated that wintering bees in a cellar effected a saving of from 5 to 10 pounds of honey per colony. Mr. Root suggested that a good chaff hive would give almost as good results as a cellar, but was told by quite a number that he was mistaken.

Judging from my own experience, which, I will admit, is not so decisive as it might be, consisting as it does only of general observations, and of several times being obliged to take honey from cellar-wintered colonies, and give it to those wintered out-of-doors, I should place the saving by cellar-wintering at about 4 pounds per colony.

Mr. A. G. Hill has given us some excellent tables showing the amount of stores consumed during the winter, when the bees were protected; but, according to the table in his paper for April, 1886, he has been wintering bees in the cellar only since the winter of 1883-84. Comparing the three years of cellar-wintering that are included in this table, with three corresponding years in the table showing the results of out-door wintering, I find that the saving by cellar-wintering averages 2 pounds and almost one ounce per colony.

The next step is to decide in regard to the expense of cellar-wintering. I had a cellar under one-half of my house. Last fall I dug out the other half at a cost of $5, which enlargement furnished room for 100 colonies. The soil was hard clay, and as the walls were given a slant of about 60°, no stone wall was needed. As the hatchway to the other part of the cellar also furnished an entrance to the new part, it is perhaps fair to assume that the bee-cellar cost $10. The interest upon this amount is 70 cents, or 7 mills per colony. To carry the bees in and out the cellar, counting a man's time one shilling an hour, cost 2 cents per colony, and the apiary was 15 rods distant; hence, to winter my bees in a cellar costs 2 cents and 7 mills per colony.

Knowing that Mr. R. L. Taylor, of Lapeer, Mich., had built a new honey house having a cellar under it for wintering bees, I wrote him asking in regard to cost, etc. Here is what he says:

"My new bee-cellar, which will accommodate 250 colonies, should not be figured, I think, to have cost me to exceed $50. Of course circumstances would make the cost vary greatly. I can easily put the bees into the cellar and take them out again for 2 cents per colony. Your plan of spring packing is all right, but can it be made popular?"

The interest upon the cost of Mr. Taylor's cellar would be 1 cent and 4 mills per colony; making the cost of cellar wintering to him 3 cents and 4 mills per colony.

Perhaps some one will say: Well, this is cheap enough, but how will it be if a cellar is built independent of any building, and expressly for wintering bees? In reply I will say that each bee-keeper must have a house, also a shop or honey-house, and the bee-cellar may be under one of these; but special, independent repositories need not be so very much more expensive. Mr. J. H. Robertson, of Pewamo, Mich., has an out-door cellar for wintering bees. It is double-boarded, and the space between the boards filled with sawdust. If I remember aright it cost about $40, and will hold at least 350 colonies. The interest would be 8 mills per colony, carrying in and out, 2 cents, making the cost of cellar wintering to him, 2 cents and 8 mills per colony.

I know that bees can be carried into and out of a cellar for 2 cents per colony, and to the best of my knowledge a wintering repository can be furnished, in most instances, at a cost not greatly exceeding one cent per colony.

Fellow-be-keepers, I may yet be compelled to put the saving by cellar wintering at a lower figure than I have, but I was neither "wild nor careless" when I placed it where I have; as, before making the assertion, I went over the ground fully as carefully as I have in this article, and felt that I spoke within bounds.

I presume few of the readers of my little book would imagine that I devoted a whole month exclusively to its writing. Each point was gone over with great care, and so hard did I work to have everything exactly correct, that I could scarcely sleep nights from waking to "think."

Since I have proved the importance of spring protection, I, too, have thought considerable about house-apiaries, but that they should have been so almost universally abandoned is pretty nearly a knock-down argument against them. Perhaps Messrs. Vandervort and Foster have found some new "wrinkle."

There are two or three other points in Mr. Clarke's review that I should be pleased to notice, but this article is already too long, and I must wait until another time.

Rogersville,6 Mich.

For the American Bee Journal.

Bee-Keeping a Healthful Occupation.

MRS. L. C. AXTELL.

All the way through my last letter in the BEE JOURNAL, I am made to say "my" when it should have read "our," as Mr. Axtell is *the* bee-man here, or rather, he and I are in partnership, as I think all husbands and wives should be if possible in all business, especially in the bee-business if they wish to succeed.*

But Mr. A. does not care to write any of his experience in bee-culture, and I rather like to write, and take a great deal of pleasure in reading communications from others. We have now 202 colonies of bees—not so many as formerly. It takes much of his time to make racks, hives, sections, shipping-crates, etc., besides overseeing work on the farm. I take it upon myself to do all the bee-work I can, partly for the out-door exercise, as it has been a great benefit to my general health. Before we kept bees there was 10 years and more that I suffered everything with indigestion. I had but little pleasure in my food, from the suffering that followed. I tried many remedies, but *nothing* helped me until I became interested in the mysteries of the bee-hive. I read everything I could get hold of far and near, trying to commit as much of it to memory as I could, and watching every chance to read what I could find to my husband, or mark for him to read. From that day when I began to forget myself and live for the bees, I began to have better health, and food digested better, until now for years I have been troubled but little with indigestion, and life has taken on a new beauty. I find I can be as successful, too, in the care of our home apiary as my husband can of our timber apiary.

But this spring, feeling rather better than usual, I have, with the help of an inexperienced girl, worked all of our 202 colonies, through clipping all the queens' wings except a very few that I could not find on the first trial; and preparing the bees for sections. The girl and I have taken pleasure with our 3-year-old black horse in a buggy, and having an early dinner, drive down to our timber apiary, 4 miles away, work through 12 to 18 hives, turning the frames around, as we winter them placed lengthwise of the hives (Quinby), and set up one inch from the bottom-board in large chaff hives; hunt out queens and clip wings, give more brood-combs full of honey; return the chaff until time to put the sections on; and then go home tired but strengthened. We enjoy the trip more than if we had been to a picnic.

If we got no pay for bee-work, I fear it would after awhile become insipid and tiresome, but the honey—such piles of honey that always reward faithful work with the bee—seldom fails us, and what to be desired more even than honey is the cash that it brings to do good with. It is a real luxury—a luxury worth living and laboring for. Those of us who have learned to love God for all he has done for us, and what we expect to receive in the future, do not or ought not rest content to enjoy this knowledge alone, while there are millions of our fellow beings who have no knowledge of Him who made them, and are groping through this world in midnight darkness. I say it is a real luxury to have the wherewith to do a little for such people, and hope many of our brothers and sisters in bee-culture are also enjoying this blessed privilege.

Roseville,+o Ills.

[*It is all right to say "our" when there is a partnership, of course; but the clerk who prepared your letter for the press, knew nothing of your family history or connubial partnership. If you had slipped in the words, "My husband and I are the apiarists," all would have been plain.—Ed.]

For the American Bee Journal.

Transferring Bees from Box-Hives.

W. W. BENTON.

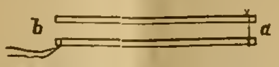
Mr. Editor:—I wish you would give us a good method of transferring bees from old box-hives to frame hives. I have been looking for such an article for some time. Please do not refer us to printed books, but give it in detail in the American Bee Journal, for the benefit of its new subscribers.

Newry,⊙ Pa., May 3, 1887.

[The best time to transfer bees from the common to movable-frame hives is about the season of swarming, though it may be done on any warm afternoon, when the bees are actively at work.

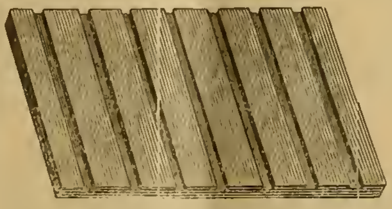
A transferring board about the size of the frame should be prepared in advance, by making grooves of about ½ an inch wide and ¼ of an inch deep, and about 2 inches apart. The spaces between these grooves should be cushioned with several thicknesses of cloth, to prevent the brood from bing injured when the comb is laid upon it.

Transferring sticks should be prepared from some light, tough wood, about ½ inch longer than the frames are deep, and about ¼ of an inch square. Fasten two of these sticks together with a piece of fine annealed wire, so as to leave about one inch of space between them; attach a piece of wire to the other end of one of the sticks, to be used in fastening when placed around the frame of comb. A small notch should be cut to admit the wire, and prevent slipping. These sticks should be made in pairs, and be kept ready for use.



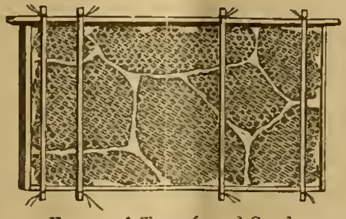
Wired Sticks for Transferring.

After smoking the bees at the entrance of a box-hive, remove it some distance from the old stand, leaving an empty hive or box in its place, to receive the bees that return from the fields; invert the hive, place an empty box or hive over it, of the same size and shape, wrapping a sheet or cloth around where they come together, leaving no cracks large enough for a bee to escape. By gently tapping the hive for some time, most of the bees, with the queen, will enter the upper box. When they have nearly all left the hive, place the upper box with the bees on the old stand. Being alarmed and filled with honey, they may be handled without fear.



Transferring Board.

The old hive may now be removed to a convenient room or building and taken to pieces, by cutting off the nails with a cold-chisel and prying off the end, cutting the combs when taken out as near as possible to the size of the frames to be used. The transferring board should be placed upon a table or box, to be in a convenient position for working over it.



Frame of Transferred Comb.

The pieces of combs containing honey may be placed at one side till some with brood are found; this should be put upon the transferring board, so that when the frame is placed in position over it, the brood may be nearly in the same position as it occupied in the old hive, and near the top of the frame, as that will be the warmest position in the hive. With a honey-knife cut these combs to make them fit. If more are wanted to fill the frame, use the combs of honey first removed from the hive. Then push the ends of the sticks, that have no wire attached, through the grooves, from the bottom of the frames, where the combs may need support; the other sticks attached, place on the top of the comb, and fasten the ends together at the top of the frame, to match the fastenings below. Place this frame in the hive, and proceed in the same manner with the next brood-comb, and let it occupy the adjoining position in the hive, giving the frames containing honey the outside position on either side. The honey from pieces of comb not used, and especially from all drone comb, should be removed with the extractor.

Carry the new hive to the old stand, and empty the bees out of the box on a sheet, in front of the hive. See that the queen, as well as all the bees, enter it. To prevent robbing, the entrance should be contracted; and in two or three days, when the bees have fastened the combs, the transferring sticks should be removed. Always work slowly with the bees, and avoid jarring.

As several have asked to have Mr. Heddon's plan of transferring repeated, we give it below:

About swarming time I take one of my Langstroth hives containing 8 frames of foundation, and with smoker in hand, I approach the hive to be transferred. First, I drive the old queen and a majority of the bees into my hiving-box. I then remove the old hive a few feet backward, reversing the entrance, placing the new one in its place, and run in the forced swarm. In two days I find 8 new straight combs with every cell worker, and containing a good start of brood. Twenty-one days after the transfer, I drive the old hive *clean* of all its bees, uniting them with the former drive, and put on the boxes, if they are not already on. If there is any nectar in the flowers, the colony will show you comb honey. About the queens: I usually kill the forced queen as the bees run in.

I run them together as I would one colony in two parts. Now to the old beeless hive; of course there is no brood left, unless a little drone brood, and we have before us some combs for wax, for more foundation, and some first-class kindling wood.

If you have no method by which you can use a full hive of frames, of full sheets of foundation, running a full swarm into them at once, by all means procure it without delay.

We hope this will be sufficiently "detailed" to oblige our correspondent. It should be remembered that every beginner ought to have a good "book" for convenient reference at all times.—Ed.]

Translated from Bienen Zuchter.

Honey Cakes, Cookies and Gingerbread.

J. DENNLER.

I consider honey as a food second to none, on account of its solubility in the blood, its power of providing for heating the body and maintaining life.

I strongly recommend honey as food for children, especially for those who are growing quickly, as it provides easily-digested food, changing their pale faces and languid condition to a ruddy hue and sound health.

To the old it gives heat. Do they wish to enjoy a green old age? Let them eat milk and honey. Crumble up white bread and pour on it liquid honey and cream. This is the most healthy, the most nourishing, and the most relishing breakfast.

In the following recipes the metrical system of weights and measures are changed to the English for convenience. The gramme (grm.) contains nearly fifteen and a half grains, the kilogram (k. g.) is two and a half pounds, and the litre nearly a quart.

Alsatian Gingerbread.—1 lb. (half k. g.) honey, 1 lb. (half k. g.) flour, 2½ drams (10 grms.) of bicarbonate of potash. The honey must first be put on the fire in a sauce-pan till it begins to boil. It is then taken off the fire, and the flour well stirred up in it, and last of all the potash. If sweet gingerbread is wanted, you must whip up the white of an egg, and stir in ¼ of a pound (125 grms.) of syrup or honey.

Basle Cookies.—Prepare some dough as in the above (which will keep for a year in a cellar); mix it with ⅓ pound of shredded almonds (5 grms.), 1¼ drams of orange juice (3 grms.), ¾ dram of lemon juice, 2 grms. of cinnamon, together with (1 grm.) ¼ dram of finely pounded cloves. The whole must be carefully kneaded together and sifted, so that there are no lumps, and then baked.

French Honey Cakes.—Heat in a sauce-pan 4¾ ounces (150 grms.) of pure sugar, and ¼ pint (⅛ litre) of milk. When the sugar is dissolved add 12 ounces (350 grms.) of honey and boil, mixing with it 1 pound (half k. g.) of fine flour, and 30 grains (2 grms.) of bicarbonate of potash. Knead the dough thoroughly, and make a thick dough of it, and put it in a dish sprinkled with some flour, and bake for an hour.

English Honey Cakes.—Take 2 lbs. (1 k. g.) of honey, ½ pound (250 grms.) of fresh butter, the juice of two lemons, and some ground nutmeg. Melt some butter and well mix the ingredients together. Take 2 pounds (1 k. g.) of flour and make a dough, which must be lightly and carefully rolled out into cakes about ½ of an inch thick. Cut it in pieces, and bake them lightly in butter.

Honey Fruit Cakes.—Take 4 eggs, 5 tea-cups of flour, 2 tea-cups of honey, 1 tea-cup of butter, 1 tea-cup of sweet milk, 2 tea-spoonfuls of cream of tartar, 1 tea-spoonful of baking soda, 1 lb. (half k. g.) of raisins, 1 lb. of currants, 1 tea-spoonful of cloves, 1 tea-spoonful of cinnamon, 1 tea-spoonful of nutmeg. Bake in an oven with a slow fire. These cakes will keep good for months.

Honey Tea-Cakes.—1 cup of strong honey, ½ cup of thick white cream, 2 eggs, ½ cup of butter, 2 cups of flour, ½ tea-spoonful of soda, 1 tea-spoonful of cream of tartar. To be made into dough and bake slowly.

For the American Bee Journal.

Honey on Commission—My Experience

R. V. MUIR.

I shipped to a large city 16 Heddon cases of comb honey, and received returns for the same at 14 cents per pound for a certain amount, and 10 cents per pound for the balance, which was termed in the returns as "damaged sections." I was offered 15 cents per pound at home before shipping it. The retail price in that city was 25 cents per pound.

Some months after I had occasion to visit the same city on business, and found some bee-keepers who had wholesaled their honey at 20 cents per pound. Now the question naturally arose, why was not my honey sold at the regular wholesale price, provided it was as good in all respects as the other? It was a very fine article of pure linden honey.

Since then I have not shipped any honey, and never intend to do so. I have worked up my home market, and on March 7 I had not a single pound of extracted honey, and only a few sections filled with fall honey. My extracted honey sold at 10 cents per pound, and the comb honey at 15 cents per pound. I called this my wholesale price to grocers, and all others I sold more extracted in 50-pound kegs than in any other way. All that came to the apiary purchased at the above prices, without regard to quantity. Three-fourths of the crop was sold at home. Some may think that it was unfair to deal in this way with the grocers, but my object was to make the farmers come and buy of me instead of the grocers (as they charged 15 cents per pound for extracted honey, for which they only paid 10), and I succeeded. My honey was genuine, and my customers knew it.

BOOMING THE BUSINESS.

What would we think of a banker who, after he had bought State or county bonds at a certain discount, and then sent them to New York or some other commercial centre, and sold them for 10 or 15 per cent. advance, and then rush to a printing office and have it put in the first daily paper issued? Would not the community as one man say that he was a fit subject for a lunatic asylum? Certainly, and the verdict would be correct. Well, this is just what many bee-keepers are doing, ignorantly perhaps, especially those who have just commenced the business—mere tyros in the art—and "happened" to have "good luck" from 2 or 3 colonies, not considering for a moment the average difference between 2 or 3 colonies and two or three hundred colonies.

All have doubtless often seen something like the following: "From 35 to 55, and 3,000 pounds of honey." While such reports may be true, it is an indirect way of "booming" the bee-business, which is at least misleading. The country is strewn with apiarian wrecks, then why "boom" the bee-business to the detriment of those who wish to follow it as a pursuit?

I have been a reader of the Bee Journal for years, and intended to keep silent, and let other correspondents do the "gushing" and "booming;" but I thought the time had come to say something on the other side.

Watson, Mo.

Read at the Oneida Co., Convention.

Can we Control our Honey Market?

JOHN ASPINWALL.

This subject seems to be agitating the minds of many (or I might better say a few) of the prominent bee-men at the present time. It is an important subject, and one worthy of much thought. We may, by combining to control the market, do ourselves some good, but the chances are that we may do ourselves much harm. To assert that we can so control the honey market as to place the price where we please, is proposterous; and to my mind so far from possible, under the present condition of things, as to lead me to think that some other motive prompts the discussion.

Let me put the facts more plainly before you: What is it that regulates trade? What is it that causes fluctuations in any business not controlled by a speculative board, as in the case of stocks and grain? I answer that it is supply and demand. Coal is controlled, we know, by great combinations who place the price where they please to a certain limit, until some firm drops out, and cut-throat prices are the order of the day, to the detriment of all concerned. But is it to be supposed that because this combination owned all the coal fields in a certain very large district, that it could put the price of coal to $10 per ton? No, they could not hold those prices three days before coal would be coming in from West and South and North and East to fill the markets at such a price as the market will allow. Controlling a market is a preposterous proposition, if we have not demand to act as the chief factor.

The honey interest has not the advantages which exist in other industries, such as iron, coal or petroleum; for in the first instance mines and wells can be bought outright and controlled, but who can buy up the flowers of the field, or who control the flow of nectar? Only He, under whose providential care bee-culture always rests.

Suppose that the members of the Oneida Bee-Keepers' Association were combined together, and declare that section honey should be sold by the members for not less than 20 cents per pound for the best quality, and I was an outsider not belonging to your association. Is there any law to prevent me from bringing my own honey, and as much more as I chose to buy in other parts, and selling it under your very noses at 18 cents a pound? Where would you get your money from to continue your business, if you found buyers loath to pay 20 cents per pound for the same article they could obtain from me at 18 cents? I leave the answer to yourselves.

What would you think of a lot of enthusiasts getting together to control the egg market, in country towns and elsewhere? How many farmers' wives would they control when it came to the question of selling a dozen eggs to pay for a new shawl, or to buy bread for the children? In this case the egg men have an advantage over the honey men, in that eggs are a far greater necessity than honey, and consequently there is a *constant* demand.

Suppose that a man depended on honey production for a living, and the combination of bee-keepers, to which he belonged, should say the honey market must be 20 cents, and some fellow comes along offering honey at 18 cents in this man's market, and gluts it. Where is the member to get bread from? He will go out of the bee business next year, and the fellow will reap the harvest in a market which the first bee-keeper has toiled so many years to create. Combination, you see, would be a curse there, instead of a blessing.

I offer the following suggestions, not as a solution of the problem, but something toward a solution: I would propose the formation of a honey company headed by some experienced men in the honey business, and the establishing of head-quarters in New York city with branch establishments at the different centres of commerce. This to be a stock company that shall buy honey outright and not sell on commission, and whose principal work shall be the creation of a market by circulating pamphlets tending to educate people to the numerous uses to which honey can be put, and above all, inspiring the minds of the general public with the absolute confidence that when honey is bought from this company and labeled "pure honey," it is "the truth, the whole truth, and nothing but the truth."

Barrytown,⊸ N. Y.

For the American Bee Journal

Moving Bees on the Cars.

ESAU RUSSELL.

I moved my apiary from Tiffin, Iowa, on April 6, to this place. The weather being cold when I started, I simply nailed wide boards on top of the hives tight, and placed screens in front, so that the bees could all come out if they wanted to; but very few bees came out until the next day; then the weather got warm and lots of bees would crowd the ventilators. I piled the hives 6 high in the car, and then packed tight, giving free circulation of air. I used a stock-car, and scarcely a comb was broken, as I placed little bunches of straws between the hives to prevent the sudden jar of the cars. The bees are doing well now, are building up rapidly, and some hives are half full of brood.

Ida Grove,⟜ Iowa, May 7, 1887.

Practical Farmer.

Honey as a Tooth-Preserver.

DR. W. G. PHELPS.

From a hygienic stand-point the value of honey is scarcely realized by the masses. Were it the case the *use* of it would have kept pace with the increased use of sugar for the past 25 years, which it has not. Years ago honey was to a great extent the *sole* sweetening medium, and the general health of civilized people was better than of the same classes to-day. The price of honey has gradually placed it among the luxuries, while sugar from its cheapness has been substituted in its stead. "Had the science of bee-keeping," says one writer, "been in its present advanced stage when the sugar-cane industry began its rapid growth, the use of sugar would have been considerably retarded by the contemporaneous march of its more wholesome competitor, honey, which then held the field."

By modern methods employed in bee-keeping, the purity and perfect cleanliness of honey is guaranteed, and had the rational culture of bees marched along with scientific sugar-making at an early date, we should have heard less of cheap and nasty substitutes (as the glucose mixtures for instance, manufactured potatoes, sawdust, rags, etc., frequently) for pure sugar and wholesome honey. The latter would have been produced at so low a rate that it would have held its own as the most delicious food, sweet-meat, and saccharine diet, either rich or poor could possess."

As some are already aware, honey is a perfect substitute for cane sugar in preserving fruits, in wine and beer making, and for cider in manufacture of vinegar, while as a medicine in many forms, it is invaluable.

A leading medical and scientific journal advances the following good points in reference to its use: "But for cane sugar there would most probably not be so many millions of artificial teeth in daily use. As there are, the grape sugar of honey being at once fit for assimilation, whereas cane sugar (one has noticed how the eating of sweets increases thirst!) calls on a laggard saliva to convert it into grape sugar, and rests in nooks and corners among the teeth, fit food and breeding-ground for caries, schizomycetes, sphæromycetes, and what not, which turn it into acid, the said acid acting upon the lime of the teeth and dissolving them."

Because cheap cane sugars have been taken into the stomach in unreasonable quantity, the liver has been unable to transform them, resulting in disordering both organs.

Dyspepsia and biliousness are probably caused more by the use of cane sugar than most of us think; indeed, Dr. Cheshire tells us that if cane sugar be injected into the blood, it is at once excreted, which is not the case with grape sugar. Let us then remember that it is only grape sugar which the system can at once use as heat-giving, fattening food, and this it is which honey supplies ready prepared for us by the bee in Nature's laboratory.

Honey will carry along with itself into the stomach for digestion more bread (starch, etc.) than butter, each helping the other; and a pound of honey at 8d. or 9d. per pound, will consequently go as far as 2 pounds of butter, costing 3s. Here then is decided economy.

It can be used for almost every purpose we now use sugar for; and by the principles of modern bee-keeping, it is becoming more plentiful and cheaper year by year. A great objection to its free use in past years was its comparative high price, owing to the restricted supply caused by the annual destruction of bees. This is now removed.

Another serious objection was the fact that honey disagreed with many people. The wonder is that it agreed with any one, for a common way of obtaining it (after smothering the bees) was to cut out the combs containing young bees and pollen, besides honey, and squeeze the whole in a cloth, straining the result for use.

It will thus be easily seen, without entering into details, how much objectionable matter was thus imported in the honey, which would tend to disorder delicate stomachs. All this is now changed. No brood (young bees) is now allowed by the bee-keeper to be hatched in the clean, snow-white sections of white basswood we see in the shop-windows of fruiterers and grocers who sell the honey, the whole of which honey and comb may be spread on bread and eaten, the cells being so thin that it takes six cell-walls to equal the thickness of ordinary note paper.

Galena,♂ Md.

Local Convention Directory.

1887. *Time and place of Meeting.*

May 24.—N. W. Ills. & S. W. Wis., at Rockton, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 26.—West Lake Shore Central, at Kiel, Wis.
Ferd Zastrow, Sec., Millhome, Wis.

May 27.—Darke County Union, at Greenville, O.
J. A. Roe, Asst. Sec., Union City, Ind.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☛ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees in Excellent Condition.—Charlie W. Bradish, Glendale,♂ N. Y., on May 9, 1887, says:

My bees have come through the winter in excellent condition. They were taken from the cellar on May 3 and 4. After examination I have found 100 colonies good and strong, and a few weak ones. They are at work to-day on maple blossoms. Clover has wintered well, and the prospect is good for a honey crop.

Results of the Winter in Vermont.—John H. Larrabee, Larrabee's Point, +o Vt., on May 9, 1887, writes:

The past winter here has been unusually severe, and like other bee-keepers in this region, we have lost heavily. Personally, I have been very fortunate, having lost only 2 out of 33. The spring is very backward, and fruit has not yet blossomed. One lady has only 9 colonies left from 25; another apiarist lost 40 colonies out of 130. Mr. Manum has met with his usual success, but has lost a little heavier than usual; I think about 50 colonies out of 800. I am of the opinion that the Inter-State Commerce law will operate to the discouragement of large bee-associations, and all other organizations of a like character, but it may aid local societies. The bees are booming at present—making up lost time.

Finding the Queen in a Hive, etc.—Mrs. L. C. Axtell, Roseville,+o Ills., on May 5, 1887, writes:

Our bees (my husband and myself are the apiarists) now are doing finely. Both those wintered out-of-doors and those in the cellar are still packed with straw, and will be until we put on sections. They are increasing in young bees very fast. We always aim to clip the queens' wings before many of the young bees are hatched out in the spring, as it is so much easier to find the queen, for young bees are so apt to run, pile up and fall off in bunches. When bees get to running we give up the search for that time, as it is not very safe to have the bees run, for there is more fear of loss to the queen. The queen is more easily found at the first or second time the hives are opened in the spring; then with care she is in nearly every hive found the first time the combs are looked through. Use as little smoke as possible, and get to looking for the queen as quickly as possible after opening a hive.

Colonies Strong and Cross.—E. Pickup, Limerick,♂ Ills., on May 11, 1887, says:

Last fall I made a bee-house for my bees, and the result is that this spring my colonies are stronger than usual. It has finally become warm, so to-day I took from the hives the winter packing of sawdust and chaff, and the bees were soon outside. Some think I was foolish for keeping my bees packed until now; but I do not think so, as my bees are now strong and cross, and not weakened by poverty.

The Blank-Strip Section-Case.—J. W. Powell & Son, Mankato,♀ Minn., write:

In reply to Mr. J. J. Roe's letter on page 267, we wish to say that we do no desire to argue the matter of "priority" of the invention of the blank-strip section-case. We do not remember just the exact date when we first thought of making surplus cases that way, but we made a number of them last season, and gave them a thorough test, leaving some of them on the hives all of the fall; and we never have seen sections come off of the hive so clean. We never have intended to try to get a patent, however, but give other bee-keepers the benefit of our thought, in part payment for the many thoughts and ideas that have been so freely given to us. We hope this short explanation will satisfy Mr. Roe and all others; and thus we will leave the matter where it is.

Bees are Booming.—Lewis Werner, Edwardsville,♀ Ills., on May 8, 1887, writes:

Bees have commenced working on white clover. I am expecting a fine crop of honey this season. Bees are strong, and ready to swarm at any day. Swarming will be a little later than it was last year.

Non-Progressive Bee-Keepers.—E. W. Alexander, Esperance,o+ N. Y., writes:

I have kept from 50 to 300 colonies of bees for the past 25 years, and expect to continue in the business the remainder of my life, and I know that there has never been anything that stood so much in the way of selling our honey at a paying price, as that class of slip-shod bee-keepers who give their bees little or no attention, and put their honey on the market in any shape, for any price they can get offered for it. I do not think there are many bee-keepers who keep 50 colonies or over, but what would be glad to have a law passed prohibiting bees from being kept within 25 rods of our public highway. That would wipe out *all* of these slip-shod bee-keepers who will not Italianize their bees nor have their honey in a suitable condition for market; consequently they are a nuisance to the business. A man who cannot attend to his bees as they should be, 25 rods from a highway, ought not to keep bees.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—

BEESWAX.—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.
May. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¾@5 cts.; light amber, 4½c.; amber, 4¼c. Comb, white, 12@14c.; amber, 7@9c. Demand good.

BEESWAX.—23c.
May 8. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.

BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ½ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20c. for prime.
May 7. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.: amber, 7@9c. Extracted, white, 4½@5c.; light amber, 3¾@4¼c. Market quiet.

BEESWAX.—19@22c.
Apr. 16. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—We quote: Finest white 1-lb. sections, 12@12½c.; choice white 1-lbs., 11@12c.: choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; good white in kegs and barrels, 6@6½c.; dark, 4 to 4½c. Demand good and market firm.

BEESWAX.—25c.
May 4. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.: extracted, 5@6c. Sales large and demand good.

BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Apr. 21. C. F. MUTH & SON, Freeman & Central Av.

* * *

By Using the Binder made expressly for this Bee Journal, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

AMERICAN
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923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

◆

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

A Cheap Smoker.—"Martinsville, Ohio, April 11, 1887.—Messrs. Bingham & Hetherington, Abronia, Mich.: Enclosed find $2.50 for two Large 2½-inch Bingham Smokers (wide shield). They are for my neighbors. I have one of the Bingham Smokers that I have used six years, and it is as good as ever. Send ½-dozen rates.—Respectfully, AMOS R. GARNER." 17A4t

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

Advertisements.

FOR Sale.—A second-hand Barnes Combined Saw. Also a 9-inch Pelham Foundation Mill, good as new.—J. W. Buchanan & Bro., Eldora, Iowa.

REMOVAL.—We desire to inform bee-keepers of the removal of our place of business to 28 & 30 West Broadway, near Duane Street, New York, where we have better facilities for handling honey; and respectfully invite all bee-keepers visiting our city, to give us a call.
McCAUL & HILDRETH BROS.

WANTED.—A Situation by a first-class bee-keeper, at once. Good References.
FRANK CURL, 414 8th St., Des Moines, Iowa.
20A1t

CHEAP!

DURING May and June I will sell NUCLEI COLONIES at the following prices:

Two-frame, with choice Italian Queen... $3 00
Three-frame " " " " ... 4 00
Hybrids at 25 per cent. less than above prices.

☞ These Colonies are to be first-class in every respect. QUEENS in season. **F. W. MOATS,**
20A1t THE BEND, Defiance Co., Ohio.

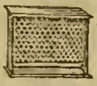
20,000 **POUNDS Comb Honey** Wanted, produced within 150 miles of Chicago.
Address, **J. P. Miller,**
20A2t 168 39th St., Chicago, Illinois.

35 **35**

ORDERS taken now for Bright Yellow Comb Foundation at 35 cts. per lb. for Brood, and 45 cents for Extra Thin for Comb Honey.
GUST PROCHNOW,
20Atf MAYVILLE, Dodge Co., WIS.

500 **POUNDS FOUNDATION,** at 35 cents per pound—5 to 7 feet to the pound. First orders get it. Sample free.
Address, **S. & A. M. SMITH,**
20A2t MATTOON, ILLS.

Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.,

DESIRES to briefly outline the contents of his little book,

"THE PRODUCTION OF COMB HONEY."

The "Introduction" gives a concise sketch of the author's experience in producing comb honey, and explains how the book came to be written. The first chapter, "Securing workers for the harvest," sets forth the advantages of cellar-wintering combined with *spring* protection. "Aside from food in abundance, *warmth* is the one great thing needed to promote *safe*, early breeding." The cheapest and best method of securing this is given in detail. Under the head of "Supers" the author names his favorite surplus case, and gives reasons for the preference.

The next topic is that of "Separators." Their advantages and disadvantages; the conditions under which they are needed and the methods necessary to their abandonment are briefly told. Then "Sections" are taken up; the good and bad qualities of the different kinds mentioned; the time for putting them on given and the advantages of having them filled with comb, especially in the spring, fully explained.

The next three pages are devoted to "Tiering-Up," in which the operations of this system are explicitly described, showing the ease with which it enables a bee-keeper to handle a "honey-shower." Then follow: "Hiving swarms on empty combs; Hiving swarms on foundation; and Hiving swarms on empty frames;" in which the question of *profitably* dispensing with full sheets of foundation in the brood-nest when hiving swarms is made perfectly clear, and thorough instructions given for its accomplishment.

"The building of drone-comb."—This appears to have been the great stumbling-stone in the road to success with starters only, hence six pages are given up to this subject. *Why* bees build it, is well considered, and the way to prevent its construction made plain. The next two pages are used in answering the question, "What shall be used in the sections?" That is, when shall foundation be used, when combs and when shall the bees be allowed to *build* the combs. Under the head of "Secretion and utilization of wax," attention is called to the fact that we have been losing a *big* thing by not utilizing the natural wax secretion. Illustrations are given, and suggestions made.

The "Conclusion" requests "the freest of criticism," and cautions all not to adopt the methods advised upon too large a scale at first.

☞ Price of the Book, **25 cents.** 19Atf

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive**, the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workman-like manner. Send stamp for Sample SECTION and Price-List. 2E12t

BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.

M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

FOUNDATION

STAPLE brand, first quality, *cannot* be excelled. Satisfaction guaranteed. My Foundation is used and endorsed by Prof. J. H. Comstock, of Cornell University, G. W. Stanley, and many others. For Brood, 6 ft. to lb., 40c. Light, 45c. Every sheet equal to sample; orders filled in rotation.
18E2t WILBER G. FISH, Ithaca, N. Y.

QUEENS for 75 cts.

I **AM** ready to ship choice Italian Queens, bred from select mothers. Untested, 75 cts.; Tested, $1.50. **E. F. LOCKETT,**
18Etf COLUMBUS, MISS.

100 COLONIES of Italian and Hybrid Bees for sale at bottom figures.

Write for prices.
A. J. & E. HATFIELD,
12Etf SOUTH BEND, IND.

BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees**, best strain, strong, and in 10-frame wired Simplicity hives; for sale at $8.00 per Colony. **Z. A. CLARK,**
8Etf ARKADELPHIA, ARK.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
8Etf NEW PHILADELPHIA, O.

Western BEE-KEEPERS' Supply House.

We manufacture Bee-Keepers' supplies of all kinds, *best quality* at *lowest prices*. Hives, Sections, Comb Foundation, Extractors, Smokers, Crates, Honey Buckets Veils, Feeders, Bee-Literature, etc., etc. Imported Italian Queens, Italian Queens, Bees by the lb., Nucleus or Colony. "Bee-Keepers' Guide, Memoranda and Illustrated Catalogue" of 48 pages FREE to Bee-Keepers. Address **JOSEPH NYSEWANDER, DES MOINES, IOWA.**

huck's invertible Hives & Cases. I make **L.** hives all styles. Greatly reduced prices.-806 Walnut st.
16E3t

"Boss" One-Piece Sections,

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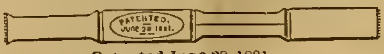
PATENTED, JUNE 28 1881.

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WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
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ESSAYS

ON THE

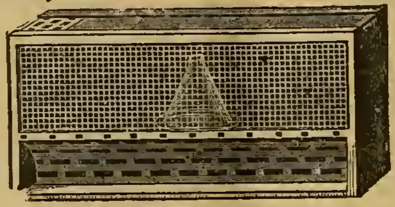
PRODUCTION of COMB HONEY

WILL be given in the June issue of the **AMERICAN APICULTURIST**, by G. M. Doolittle, Dr. G. L. Tinker, Dr. C. C. Miller, and other prominent and well-known bee-keepers. Ready May 25. Price, 10 cts.
Address, **AMERICAN APICULTURIST,**
18A4t WENHAM, MASS.

100 Colonies of Italian Bees,

Strong, first-class in every respect, For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

500 Heddon-Langstroth HIVES

—FOR SALE,—

WITH slotted honey-board, eight brood-frames, crate filled with 28 sections, all put up in good shape and painted 2 coats.

In lots of five, $1.00 each. (Price-list free on application.)

J. W. BITTENBENDER,
18Atf KNOXVILLE, IOWA.

BEES! 300 COLONIES ITALIANS

READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free. OLIVER FOSTER,
11Atf Mt. Vernon, Linn Co., Iowa.

1880. 1887.

Notes from the Bright-Band Apiary.

I **WILL** send **Pure Untested Italian** QUEENS, reared from imported mothers, to any address, at **80 cents** each; or Tested for **$1.25.** Satisfaction guaranteed. Send for terms on large numbers.

CHAS. KINGSLEY,
18A4t BENTON, LA.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

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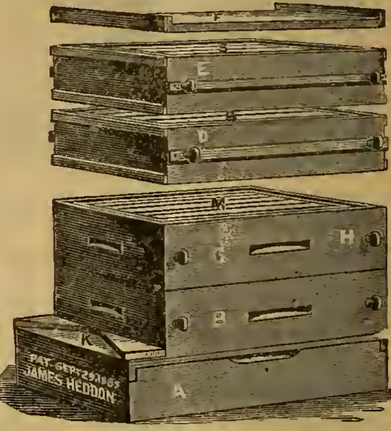
THE NEW HIVE.



I have many more testimonials like the following, from Leading Bee-Keepers of this country. See 1887 Catalogue, to know what Prof. Cook, W. Z. Hutchinson, F. P. Stiles, T. L. VonDorn, F. Boomhower, and Doctors Tinker, Mason, Miller and others think, after many of them have thoroughly tested the New Hive:

ST. CHARLES, Ills., Feb. 7, 1887.

JAMES HEDDON:—Dear Sir: Your letter dated Feb. 3rd. is received. In reply I can say that I have watched closely, and with interest, the discussions pro and con in our bee-periodicals in regard to your New Hive. Although I have not as yet been prepared, as you are aware, to give your New Hive a personal test, yet I can say, in harmony with Dr. Miller's declaration, that your invention is one that requires no practical experience, on the part of any one familiar with the art, to recognize it at once as a hive of very superior merits. Having, during the past year, given your New Hive and its management very careful thought and study, I am constrained to say that I believe it to be as far in advance of all other hives as the well-known Langstroth is in advance of the old box or bee-gum. I say I believe this, and in keeping with that belief, it is my present purpose to adopt your New Hive just as soon as I can shape my plans to that end. In short, I feel as though I CANNOT AFFORD to use any other hive. Having used the Langstroth, with its best modifications, since the spring of 1858, it is with a feeling of considerable regret that this resolution will compel me to bid this old friend a final adieu.

It is apparent to me that the novelty of your New Hive is as wide a departure as its utility is superior to all others. Notwithstanding there have been hives with features resembling parts of your New Hive, still I have never seen a combination, nor am I aware of any that possesses its functions. And right here is just where the invention and patentability exist, without which you certainly would never have received the many strong and well merited testimonials which I find in your Catalogue for 1887. Having for the past 25 years given the laws relating to patents more or less attention, I have no hesitation in repeating the word of Prof. Cook and G. M. Alves, that the "rubbish" which is already "lugged forward," in futile attempts to anticipate your claims, does not "deserve a critical man's attention."

As you seem to desire the foregoing for publication, I have taken especial pains to say nothing that I might possibly regret in the future.

Fraternally yours, M. M. BALDRIDGE.

FOR WINTER.

HARTFORD, N. Y., April 9, 1887.

We have had sleighing 134 days, and we are on runners yet. This is the first general flight my bees have had, and I had to dig the hives out of deep drifts in order that the bees might have fair sailing. Eighty-five wintered in my old chaff hives came through with a loss of half, and many more weak. Nine in your hives packed in 6 inches of chaff, and setting 2 inches from bottom-board, not having a general flight in over 130 days, are all in good order. Four wintered on a single case are in best shape, with sealed brood. Stores the same in all the hives. Bees in the cellar are dying.

J. H. MARTIN.

No Circulars sent out, unless asked for. Send address (*plainly written*) to

James Heddon,
DOWAGIAC, MICH.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. May 25, 1887. No. 21.

May Sun is bright—the air is clear,
  The darting swallows soar and sing,
And from the stately elms I hear
  Blue-birds and bees salute the spring.

We Regret to learn that Mr. C. Schindler, of Perryville, Mo., lost his wife and child on the 6th ult. This leaves him with four small, motherless children to care for. We condole with him in his affliction.

A Great Bee Show will be held at Vienna, with the main object of establishing a honey market for the convenience of the inhabitants of the Austrian capital, and a means of facilitating the sale of honey now being produced in that country.

A. O. Crawford, South Weymouth, Mass., has sent us his new Carton case for a one-pound section of comb honey. It has a piece of mica covering a hole (nearly 2 inches) through which the honey can be seen. It is a nice thing for grocers' shelves to keep the honey clean, and yet show it to customers.

Apiculture at Cornell University.—A course in apiculture under Prof. Comstock has just been added to the regular work. This course is intended to supplement the Professor's lectures on the subject. Each student is given a colony of bees, and is expected to attend to it himself. The bees given to the students are Italians, and are the property of Prof. Comstock. The students taking this course have just had some practical work. A swarm of black bees had taken possession of a tree near Fall Creek, just opposite the Professor's house, and had to be taken care of to prevent them from hybridizing the Italians. The tree was cut down, the bees hived, their queen and drones destroyed, and an Italian queen given to them, making them now harmless neighbors.

Thus it will be seen that progressive and scientific apiculture is now being taught as a practical pursuit in several of the colleges of America.

Indiana now presents a case of antagonism to apiculture. Mr. F. C. Barrett writes to us that the City Council of Fort Wayne, Ind., has passed the following ordinance against bee-keeping:

> BEES.—It shall be unlawful for any person to keep within the limits of the city, more than two hives of bees upon any one lot at a time, and said hives must not be nearer than 50 feet to any street, or 20 feet to any alley, or division line between lots or parts of lots of another. Any person who shall violate any or either of the provisions of this chapter, or any section, clause or provision of any section of this chapter, or who shall neglect or fail to comply with any or either of the requirements thereof, shall, on conviction, forfeit and pay a fine of not more than one hundred dollars.

This ordinance practically wipes out the pursuit of bee-keeping within the corporate limits of Fort Wayne—if it is enforced.

Of course a similar plan may be pursued to the one in Arkansas, mentioned last week on page 307. So far we are not advised as to the result of the trial, which was expected to take place on the 16th inst. We await that news almost impatiently.

LATER.—Since the above was put "in type," we have another letter from Mr. Barrett, stating that a bee-keeper being arrested there, it was *rumored* that it was under the provisions of the above ordinance; but, upon examination, it proved otherwise. Such a pressure is being brought to bear upon the City Council, that it is expected that it will repeal the obnoxious ordinance at the next meeting.

Bee-Keeping in Russia.—Mr. G. Kandratieff, has 500 colonies of bees, and has just visited Italy in order to study the apicultural methods of that country. One of his apiaries containing 300 colonies is located in the Caucasus, and the other of 200 colonies is located in St. Petersburg. The Italian bee-periodical *L'Apicoltore* says:

> According to the *Apicoltore*, Mr. G. Kandratieff, Director of the Imperial Opera of St. Petersburg, has availed himself of a short visit in Italy in order to make an inspection of the most important apiaries. Mr. Kandratieff is the proprietor of two large apiaries in Russia, one of about 300 colonies in the Caucasus, and another of about 200 in St. Petersburg. Notwithstanding the great difference of climate between the Caucasus, where winter is almost unknown, and St. Petersburg, where it is both most severe and long, Mr. Kandratieff obtains, it appears, almost the same amount of profit in proportion from the one as from the other. It appears that Mr. Kandratieff is a perfect master of the Italian language, and a constant reader of the *Apicoltore*, which has been his guide in his apicultural pursuits.

More Rain Needed.—Dr. C. C. Miller, Marengo, Ills., writes on May 17, 1887: "Bees are doing nicely, but unless we have rain soon there must be a failure of the clover crop here."

Here in Chicago we have had several good rains, and things are consequently looking prosperous, but in many parts of the country rain has been much needed for several weeks. Now, however, the scene has changed; for the past three days copious showers all over the northwest have revived vegetation, and good crops are now assured.

F. H. Scattergood's price-list of Italian queens is received on a postal card from Winona, O.

Foolish Warfare Against Bees seems now the rage! The idea that fruit suffers because of the presence of bees is simply ridiculous! The good they do in fertilizing the fruit trees far outweighs any possible evil that may follow from their presence.

Some time ago we noted the fact that in New England, so strong was the belief that bees injured the fruit, that an ordinance was passed obliging the bee-keepers to remove their bees to another locality. After a year or two the fruit-growers decided to have the bees brought back, as so little fruit set upon the trees in proportion to the blossoms which appeared!

While the "good" the bees are doing to fruit is so apparent, and most fully demonstrated, the injury to fruit charged against them is the work of other insects and birds, and is a senseless and ignorant *howl* by those who know nothing of the possibilities of the bees' organism, and vehemently charge the bees with puncturing fruit when their jaws are too weak to puncture the skin of the most delicate grape. All the bees do is to gather up the juice after the damage is done, and save what is going to waste! All bee-keepers wish they would even leave that juice ungathered.

The Flavor of Honey.—Mr. G. W. Brodbeck writes as follows on this subject in *Gleanings*:

> In all discussions in regard to ripening honey, one essential fact has been entirely ignored, and yet the quality, if not entirely, is more dependent on it than on any other. That honey must be of a certain consistency, is conceded by all; so quality first, and quantity next, is what we are all in pursuit of; and how to get the latter without failure of the first, is yet an open question. Admitting proper consistency, quality, then, is due to its peculiar flavor, which is derived from the nectar of the flower.
>
> All flowers and plants possess a peculiar and distinct odor, which is due to a volatile, or essential oil, peculiar to itself, and this same oil we find in the nectar of the flowers; this it is that gives honey its distinct flavor. When flowers are macerated in water, then distilled, the essential oil of the flower passes off with the steam, and, if condensed, the oil is found in minute quantities floating on the water; and this, as its name indicates, is very volatile, and, if exposed to the atmosphere, in time all evaporates. Thus the flavor of the honey is dependent on the quantity of this oil present in it. Some flowers possess more of it than others; and, as a natural result, we find some honey with more of a distinct flavor. If the retention of this oil is desirable, then that method by which there is the least loss is the one we are in search of. That we have not yet attained this, is evidently a fact; but that it is attainable is beyond question, and I doubt not but that careful experimenting will yet give us a standard to go by.

We have Received the Illustrated Catalogue of G. Stoddard, of Welwyn, Herts, England. It contains 48 pages descriptive of his stock of bee-keepers' supplies.

Warm Days tell us of approaching summer, and an article that takes us to the woods and mountains has an attractive appearance. Mr. Charles Bacon allures us all to follow him in his sketch, "Camp-Life Among the White Hills," in *Frank Leslie's Popular Monthly* for June. Miss Lily Higgin tells something about the "Jubilee of Queen Victoria." The many articles are all well illustrated, and the stories, six in number, are very clever and worth reading. The whole number is most attractive in matter and picturesque effect.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Rearing Queens and Italianizing.

Query 421.—I want to Italianize my apiary the coming season, rear my own queens from an imported mother, and work my apiary for comb honey. What is the best way to proceed, and at the same time procure the best results in honey, with no desire to rear queens for sale?—L. R., W. Va.

This is like asking a carpenter how to build a house.—JAMES HEDDON.

I should proceed as recommended by Mr. Hutchinson in his new book; then rear queens from Italian stock, and supersede by use of these.—A. J. COOK.

Have queen-cells built in full colonies, transfer them to nuclei, and when the queens are laying, introduce them to the full colonies.—W. Z. HUTCHINSON.

This space is too small to give any good method. Procure "Bees and Honey," read it carefully, and you will obtain the information you want. —H. D. CUTTING.

As Prof. Cook says, "Consult the books," and back numbers of the BEE JOURNAL, and you will probably find better answers than I can give. Queen-rearing must interfere with honey-gathering to some extent.—C. W. DAYTON.

Set aside a few colonies for the purpose of rearing queens, and then proceed according to the rules laid down in any standard work on bee-keeping. —J. P. H. BROWN.

Form as many nuclei as you think you will need, and as fast as you get queens to laying in them, introduce them to your full colonies, using the same nuclei till the required amount of queens are secured.—G. M. DOOLITTLE.

I am not sure that I know the best way for any one, and without knowing your experience, etc., I could not say what would be best for you. One good way might be to rear queens at the beginning of the honey harvest, and then as fast as swarms issue, give queens or queen-cells to the colony in the old hive, and change the old queen toward the close of the harvest.—C. C. MILLER.

In my locality it interferes less with the honey-field to change the queens at the close of the honey season. I sometimes rear the queens in nuclei and introduce them, but more frequently I remove the black queen and give the colony a maturing queen-cell, 3 days after removing the queen. Last season I introduced hundreds of virgin queens after the colonies had been queenless 3 or 4 days, by caging some of them and leaving the bees to release them by eating away the plug of soft candy with which the cage was stopped, and by simply running them in at the entrance of the hives.—G. W. DEMAREE.

Break up enough colonies into nuclei to give you the number of queens you want. Then rear a lot of queen-cells in a full colony; when they are sealed transfer them to the nuclei to come out from the cells, and to fly on their wedding tour. Let the colony the queens are reared from have from ten days to two weeks rest before rearing a second lot of cells; and three weeks, sure, again before rearing the third. Be sure and keep the air full of drones during the mating season.—J. E. POND.

I would not Italianize and try to work for comb honey at one and the same time, except to introduce queen-cells to all colonies casting swarms, if convenient. After the principal honey flow has ceased is the best time to Italianize, in my experience. Then take out all undesirable queens, and on the third day after take out the larvæ of the queen-cells and introduce very small larvæ from the select stock; mark the cells, and afterwards destroy the other cells made. Another good plan is to take out the queens, and in nine days all the cells, then introduce just hatching larvæ in a bit of comb, and let each colony rear a queen.—G. L. TINKER.

To Italianize an apiary, it will be necessary to catch and destroy all the drones, or the young queens you propose to rear will be impurely mated. Take away the queens to be superseded, and after 24 hours cage the Italian queen and insert it between two combs containing honey, which the queen may be able to reach at pleasure. In about 48 hours release the queen upon one of the combs. If she is molested by the bees, return her to the cage for another 36 hours, after which she will no doubt be accepted. If queen-cells have been started, destroy them. This need not interfere with honey-gathering to any great extent. There are other methods, and it will be well to consult Alley's book on queen-rearing. Select a method, and then follow the directions given.—THE EDITOR.

Worker-Comb and Drone-Eggs.

Query 422.—If an 8-frame Langstroth hive is filled with all worker-comb, and no drones hatch during the season, what becomes of the drone eggs, if it is not the size of the cell that causes the impregnation of the egg?—G. P.

They remain unlaid.—C. W. DAYTON.

I suppose the drone-eggs in that case are all impregnated and become worker eggs.—C. C. MILLER.

According to our best authorities, the eggs are all alike until impregnated, then they produce workers; otherwise they produce drones.—W. Z. HUTCHINSON.

Your "if" is hardly possible. I have yet to see a strong colony pass the swarming season without drone-brood.—G. M. DOOLITTLE.

There are no drone-eggs laid, that's all. If you imagine that a queen has a certain number of drone-eggs to lay in a season, you had better read what the modern writers say about parthenogenesis.—DADANT & SON.

It is bee-nature to rear some drones during the swarming season, and to accomplish this object they will alter and change worker-cells around the margin of the comb into drone.—J. P. H. BROWN.

I have never seen any trouble about bees rearing drones in worker-cells when they have no drone-cells. Drone-eggs, if they hatch and mature, make nothing but drones in all cases. I do not think the size of the cells has anything to do with the impregnation of the eggs.—G. L. TINKER.

All I know about it is, that where I have no drone-comb in my hives, I see no drones in the hive at any time of the year. I was not aware that any "drone-eggs" were laid.—JAMES HEDDON.

I presume that there are no drone-eggs to "become of," if the queen has none but worker-cells to lay in. I know that queens can lay eggs that hatch out drones, in worker-cells, for I have seen the like several times. I think that the preponderance of the evidence is on the side of the theory that the queen lays male and female eggs at her own option. Still I believe the matter has never been demonstrated.—G. W. DEMAREE.

If there is no place for drone-cells, you will have no drone-eggs, unless the hive contains an old queen; then they will make a place for drone-cells. The size of the cell has nothing to do with the impregnation of the egg. In other words, if there are no drone-cells to put drone-eggs into, all the eggs will be impregnated by the queen and produce workers.—H. D. CUTTING.

They are deposited in worker-cells, and the drones emerge therefrom the same as from drone-cells, but are much smaller. There is no difficulty in the matter at all. Every bee-keeper of experience has seen drones emerge from worker-cells, and thousands of them also at times; this particularly where a virgin queen has been kept for experimental purposes. — J. E. POND.

I should say that the queen controls this matter, and knows better than to lay drone-eggs in worker-cells, and so she lays no drone-eggs in the case mentioned. The fact so often witnessed, of a queen laying worker-eggs in cells but partially completed, some times only just fairly commenced, utterly refutes, it seems to me, the compression theory.—A. J. COOK.

Before impregnation occurs the eggs are all alike; after that they produce worker bees. If no drone-comb is provided, the queen impregnates the eggs and uses the worker-cells. This shows the value of using full sheets of comb foundation in the brood-chamber—to prevent an excess of drones.—THE EDITOR.

Honey for Bees in Winter.

Query 423.—Having a few light colonies of bees last fall, I gave each full combs of honey from strong colonies, and put them into the cellar on Nov. 19. Upon examination recently, I found the combs filthy with the excrement of the bees, with lots of honey in the hive, but the bees were dead. Is it practical to winter bees in solitary confinement on honey gathered by other colonies?—B. S., New York.

Yes.—G. L. TINKER.

It is practical in many cases. Read my article on page 184, in regard to small colonies.—C. W. DAYTON.

I should say the temperature of your cellar was not high enough, rather than a fault of the honey.—G. M. DOOLITTLE.

It is practicable to winter bees on combs of honey gathered by other bees, but weak colonies are liable to dwindle and perish with the best of stores, if the cold is protracted.—J. P. H. BROWN.

I do not understand your meaning of "solitary confinement." Bees will winter on good honey whether they or some other colony gathered it.—H. D. CUTTING.

The honey of other colonies has nothing to do with the question, if it is wholesome. But outside of this the circumstances in which your bees were placed may have been unfavorable. We could not say what was wrong, unless we were acquainted with all the particulars.—DADANT & SON.

Most assuredly; I have done it repeatedly. The probable reason of your loss is that your cellar was too cold, and your bees to few in numbers.—A. J. COOK.

The bees died with the diarrhea. That the honey was gathered by *other* colonies probably made no difference. Perhaps they were not strong enough in numbers to keep up the requisite heat.—W. Z. HUTCHINSON.

I am not sure I understand the question, but I believe that combs of honey upon which the bees that gathered it would winter well, would be just as good for any other colony.—C. C. MILLER.

To the last part of your question I say yes, most certainly so. But if you give the bees a new supply of stores and put them in confinement at once, they are likely to gorge themselves to their ruin, unless they can have a flight in the open air till they resume a normal condition. Continued confinement with low temperature will destroy any colony of bees, but *conditions* may vary the time all the way from successful wintering to the worst sort of failures.—G. W. DEMAREE.

Yes! most certainly, if preparation is made at the proper time. Honey is honey; comb is comb, and bees utilize both at all times, whether their own or of other colonies. You must look deeper for the source of your troubles. You do not say that it is so, but I judge that you put the bees on strange combs on the day you put them into the cellar. If such was the case, it should have been expected the bees would die, as they had no opportunity to construct a brood-nest before cold weather.—J. E. POND.

Your bees have that disease known as bee-diarrhea. It was not caused by "solitary confinement," nor the transferred honey. It was caused by the consumption of pollen, and that consumption was caused by some condition present with your colonies, which is not known to me.—JAMES HEDDON.

"Solitary confinement" may do for criminals; but for bees, *never*. They need company for warmth. It makes no difference as to what bees gathered the honey, so long as it is "come-at-able" for the nourishment of bees in winter quarters. Your colonies were evidently too "weak" to keep up the necessary temperature, and therefore "succumbed to the inevitable."—THE EDITOR.

Housekeeper.

Weighing the Baby.

EUGENE SECOR.

"The baby is three months old to-day ;
We want to see what the cherub will weigh—
So if papa has leisure,
I know he'll take pleasure
In bringing the scales containing the tray."

'Twas mamma, who thus from my book
Enticed me, with speech and with look
So happy, so winning,
I had surely been sinning,
Had I not left, with pleasure, my nook.

The clumsy scales to the room were brought ;
The same by which fish and potatoes were bought.
As if, in one measure,
And just at one's pleasure,
A bushel of turnips could balance a thought.

As if with grocers' scales could be weighed
A sunbeam, a joy—or a reckoning made
In pounds, to a fraction,
Of the subtle attraction
Of a lily, in all its beauty arrayed !

The treasure was wrapped in mamma's shawl,
The little pink toes and fingers and all—
'Twould not do to chill her
With the scales from the cellar—
For 'twas cold, cold weather late in the fall.

The balance was turned at ten and four,
Nor could we make it a fraction more ;
When she looked up so smiling,
So bewitching, beguiling.
That in our estimation the weight was fourscore.

Then for those dimples add at least eight,
For blue eyes that twinkle a sum twice as great ;
To the crowing and cooing—
Like wood-pheasants wooing—
Add the charms unseen that to mama have weight.

And what do you guess is the total amount ?
'Tis a sum too large for papa to count.
So back with these cumbersome
Scales to the lumber room—
To weigh Heaven's gifts they're just no account.

Forest City, Iowa.

Convention Notices.

☞ The next meeting of the Darke County Union Bee-Keepers' Society will be held at Greenville, O., on Friday, May 27, 1887.
J. A. ROE, *Asst. Sec.*

☞ The next meeting of the West Lake Shore Central Bee-Keepers' Association will be held on May 26, 1887, in Kockring Hall, at Kiel, Wis.
FERD ZASTROW, *Sec.*

☞ The Boone and Hendricks Counties Bee-Keepers' Association meets at John Ridgway's, southwest of Brownsburg, Ind., on Thursday, June 2, 1887. All are invited to come with baskets well filled, and have a nice time.
A. COX, *Chairman Committee.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ⚲ northwest; O↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Contraction of the Brood-Nest.

W. Z. HUTCHINSON.

On page 278, Mr. Demaree, in speaking of the contraction system, says: "Such treatment would bring ruin to my apiary in an average season, unless I should feed the colonies through the heated months of summer, and supply them with winter stores again in the fall, in which case I would lose rather than gain by the operation."

Farther on he says that "to so manipulate the hive arrangements as to throw all the honey into the 'surplus' costs the life of the colony. Now, if we feed back to counteract the loss on the side of the bees, we have gained nothing—nay, lost in the operation."

Let us consider for a moment what contraction of the brood-nest really does. Perhaps I cannot explain the matter more clearly than I have in "The Production of Comb Honey." I quote as follows: "To rear the great army of workers needed for the harvest, there must be, in the forepart of the season, a good-sized brood-nest—not larger, however, than an ordinarily prolific queen will keep well filled with brood—but when the bountiful harvest has finally arrived, and been ushered in by swarming, then we wish the *now existing* workers to go into the *fields*, to gather in the nectar and cure and seal it, instead of wasting their time, vitality and stores in rearing another army of workers that will come upon the field when the harvest is over and gone. Fortunately, our desire and the bees' instinct are exactly parallel in this instance. Give a swarm a large brood-nest and the bees will fill it—partly with brood, but mostly with honey; put a swarm into a hive with a small brood-chamber, allow the bees to build their own combs therein, at the same time give them access to a super furnished with comb, and they will fill the super with honey, and the brood-nest—slightly with honey, but mostly with brood."

Contraction carried to an extreme will curtail the production of brood, but increase the *immediate* production of honey; moderately employed, it will not lessen the rearing of brood nor augment the amount of honey, but effects a comparatively complete separation of brood and honey; *i. e.*, the brood will be in one apartment and the honey in another. This is what contraction does, it secures nearly all of the white honey in the most marketable shape, leaving the brood-nest filled with brood instead of honey. Now what is there about this that will "ruin an apiary in an average season," or that "costs the life of a colony?" Just as much, or, at least nearly as much brood has been reared, and the only difference is that the honey has been stored *above* the brood-nest instead of *in it*. What is there about this that is detrimental to the "life of the colony?" There are just as many, or at least sufficient bees, and they are healthy and strong, and exactly as good in every respect as though they had stored *all* their honey in the brood-nest. Why then say: "The apiary is ruined?"

Of course they must be furnished with food. There is usually enough in the corners of the frames to last them until fall. I have been practicing the contraction system now for four years, contracting to five Langstroth frames or their equivalent, and have never yet been obliged to feed my bees through "the heated months of summer." Before cold weather sets in, all that is necessary is to put on feeders and feed sugar syrup, which is not only unvarying in character, but as a winter food for bees is equal, if not superior to the best honey; and at present prices, can be used at a profit. And right here I wish to again quote from "The Production of Comb Honey:"

"Those who for any reason do not wish to use sugar, may still take advantage of this system by putting the unfinished sections back on the hives in time for the honey to be carried down and stored in the brood-nest for winter....As some may ask what is to be gained by this management, I will explain that the number of *finished* sections is increased thereby; in other words, it enables us to virtually exchange the *honey* in our unfinished sections for nearly its weight in *finished* sections, leaving us the *combs* to give the bees a 'send off' in the spring."

I do not say it boastingly, but few bee-keepers have experimented more than myself in "feeding back" extracted honey, and one thing that I have discovered is, that the loss in weight, when the bees have *empty combs* in which to store it, is comparatively slight. If the bees have to construct combs in which to store the honey, there is then a decided loss in weight, so much so that it is unprofitable. When bees are gathering honey in the fields, there are times when they may build combs to advantage, but when they get their honey from a feeder, paradoxical as it may appear, they must have combs in which to store it, if the work is done at a profit.

The idea advanced by Mr. Demaree, that the labor and excitement caused by feeding the bees for winter causes a great loss of life and vitality, does not agree with my experience. The feeding of from 10 to 15 pounds of syrup occupies, upon an average, about two days' time; it is done at a season when brood-rearing is on the wane; and it is so soon over that it has no great stimulating effect; but, far better than all theorizing, colonies so treated winter better, as a rule, than those that have nothing but natural stores. Each year I have left some colonies uncontracted and unfed, and they have shown no superiority over those that had been contracted and fed in the fall, while the profits have been considerably less. My only object in leaving some colonies in this manner was to make a comparison. A neighbor living two and one-half miles away, who did not "believe in contraction," nor in "starters only," bought my empty combs one year ago, and hived his swarms in 10-frame Langstroth brood-nest, and left his bees their natural stores, now mourns over a loss nearly twice as great as my own.

Mr. Demaree says: "But when it comes to running an apiary from year to year as a business, comb foundation and empty combs cannot be dispensed with in the majority of the apiaries in the country, and their *judicious* use must be profitable everywhere." (Italics mine.) Although this was probably intended as a criticism, I must say that I agree with him *entirely*. So many seem to misunderstand my views upon this subject; they seem to think I would banish foundation and empty combs, while I only plead for a "judicious" use of them, and it was to make clear what I considered, and what my experience taught, was a judicious use of them, that I wrote my little book, the last paragraph of which, preceding the "Conclusion," reads as follows:

"In my locality, and with *my* management (and I can see no reason why the same rules and laws will not hold good in other localities), I know that the use of full sheets of foundation in the brood-nest, when hiving swarms, is attended with loss; and I do not think the matter stops *here*. I think there are still more advantages to be gained by utilizing the natural wax secretion, and it is possible that it would be profitable to *encourage* wax secretion and comb-building. What is needed is, I believe, an abundance of empty comb in the supers at all times, and the bees at the same time allowed to indulge in comb-building."

Rogersville, Mich.

For the American Bee Journal.

Shipping Honey to Commission Men.

MRS. L. C. AXTELL.

We have for perhaps ten years shipped honey to Chicago to be sold by commission men. One year 30,000 pounds went from our apiary to Chicago. In our state of health it is almost impossible to sell all our honey at home, but Mr. Axtell and I believe in developing our home market all we possibly can.

As to commission men, I fear we think too harshly of them. No doubt some of them are dishonest, as there are those in all kinds of business who are dishonest; but there are good, Christian commission men, as well as rogues. Send your honey to them, or to men with a good reputation, and if you should fail in getting returns in time, get a competent lawyer to collect for you, with an understanding that he shall have such a per cent. on the hundred for collecting. Never take a note from a commission man, as it is a State's prison offense to sell on commission and refuse to pay over the money and keep it to do business with.

When sending the honey, give instructions as to what price you are willing to take for it, and if it does not sell for that, say you will not take less than a certain price, but to get all they can for it. We have never had trouble but once, and then we gave the case into the hands of good lawyers, and they had a few talks with the commission men, and told them they had committed a State's prison offense, and the commission men were glad to pay up without going to law with it. It cost us some $30 to collect the $550, but the lawyers threw off, in our case, ten or twenty dollars from their usual fee.

Write kind letters to your commission men occasionally, get their confidence, as it is to their interest to do business honestly. We never pay but 5 per cent. commission, and always send our honey by freight. We never had but two cases lost by railroad, and it was in due time paid for. At home we have to give 2 cents per pound for selling.

Roseville, Ills.

Gleanings.

Mr. James Heddon—Biography.

PROF. A. J. COOK.

I am very glad to accede to the request to give a brief account of the life and work of Mr. Heddon. True merit should always be rewarded; and as I am acquainted with no more able, thoughtful, studious, and hard-working bee-keeper in the United States than Mr. Heddon, it is with no little pleasure that I call attention to his life, his work, and to the valuable results of his careful experiments and thoughtful, studious labors in the apiary.

Mr. Heddon was the first specialist in bee-keeping in Michigan, and one of the first in the country, and thus his fertile, active mind has ever been directed toward the "pocket-book" side of bee-keeping; and so, as we should expect, all his work, experiments, and influence are in the spirit of this intensely practical age. Best of all, from a long and intimate acquaintance with him I feel assured that all his labor, both of hand and mind, has ever been impelled by an honest purpose and sincere desire to advance the vocation of his choice.

He was born in Genesee Valley, N. Y., Aug. 28, 1845. Thus he is now 42 years of age. In stature, Mr. Heddon is below the average, while his form is slight and wiry. He is extremely nervous, and has a keen, intense expression. He is gaunt and lean, because he has a twenty-horse-power nervous organism in a ten-horse-power physique. His nervous tension and mental energy have always been vexed that their dwelling-house were not bigger and stronger, and are determined to destroy it; and it behooves our friend to look sharply or they will succeed.

Mentally Mr. Heddon is exceptionally vigorous and gifted. The Rev. Mr. Gage once told me that he was especially interested in a certain young man in his village, who with an opportunity, would certainly make a scientist. Years after, I became acquainted with this same promising young man in Mr. Heddon.

As a speaker, Mr. Heddon is unusually vigorous. His sentences are always to the point, and his figures and illustrations are often irresistible. I have known him at our State convention to hold every person spell-bound as he explained, often at great length, his experiments, views and methods. The same spirited, forcible style characterizes his writings, as all who read the bee-periodicals know. His nervous energy, excessive love of fun, and desire for hard-earned victory, make him an eager controversialist. He fairly grows fat (mentally) in a good, square, honest, intellectual wrestle.

MR. JAMES HEDDON, DOWAGIAC, MICH.

Mr. Heddon told me that he commenced bee-keeping with nothing except a stout heart. He has been a specialist all the time, except for a brief period of late, when he has sold supplies. This diversion, he has told me, was a loss to him. Now he is worth thousands of dollars. He went into the supply business in 1879, in hopes that, by a circular, he could answer many of the questions that now came to him in letters, and save time to his business. His present capital he credits almost exclusively to honey production.

He has had as many as 550 colonies of bees at one time, which were kept in three separate apiaries. He now has 450 in two apiaries. In 1877 his Glenwood apiary, worth $1,500, and numbering 99 colonies, gave him a cash income of $1,070, and increased to 207 colonies, all but two of which came through the following winter in good condition. The expense in caring for this apiary that year was $200.

One year, with 16 colonies, he increased to 33, and sold $800 worth of honey. All of the 33 colonies wintered well during the succeeding winter. At that time honey sold for a very high price. His largest yield for one season, of a single colony, was 410 pounds, all but 48 of which was extracted. He once secured 29 pounds and 13 ounces of unripe extracted honey as the result of a single day's gathering of a single colony.

Mr. Heddon is very neat and methodical. It is a very great pleasure to visit his place. I think I never visited an apiary where more taste and good judgment were displayed in all the arrangements of the bee-yard.

The valuable improvements which Mr. Heddon has given to our industry are many, and will most interest the readers of this sketch. All that I shall name, I feel certain are original; and nearly all I know to be excellent from actual experience.

I have found the slatted honey-board a very valuable adjunct to the Langstroth hive. This, when made just right, keeps the sections perfectly neat. The spaces must be just over the centre of the top-bars of the frames in the brood-chamber, and the spaces between the top-bar and slats no more nor less than a bee-space. This prevents the brace-combs, and such a honey-board needs only to be tested to be retained in every apiary.

His modification of the Langstroth hive, omitting the portico, the telescopic upper story and cover, and the bevel of the Simplicity, have so pleased me, after a two-years' trial, that I would never think to return to the old styles. Those who condemn, surely have never tried it. The shade-board is also much superior to a tree, evergreen or grapevine.

Like myself, Mr. Heddon used sections before he ever saw them elsewhere. Though original with us, their use in our apiaries may not have priority.

Mr. Heddon's shipping-crate, as I state in my book, is neat and cheap, and was the first substantial improvement in that article.

The section-crate, with bee-space above, will probably never be excelled in securing comb honey without separators. After two years' use I pronounce it simply perfection. It is in his new hive.

I have already reviewed his new book, and there spoke of his new hive and system. There can be no question of the originality of these, and hardly less that they are a marked improvement, and will soon come into general use. I have never tried these, but the experienced bee-keeper does not need to try every invention to be assured of its excellence.

Mr. Heddon has also practiced the principles of breeding, as followed by our successful breeders of other domestic animals; that is, he has crossed two valuable breeds, and by selection has secured a strain with the excellences of both the original races and without their undesirable qualities. He claims this; and while I have not tested his improved strain, I am certain that the above is the method which must be employed to secure the best bees.

Lastly, Mr. Heddon suggested the "Bee-Keepers' Union," which may and will be of great service to our industry. Each of us is liable to prosecution by those ignorant and prejudiced, and we need just such an organization to aid us in protecting our rights, and in maintaining the high position which our industry deservedly holds among the pursuits of the world.

Mr. Heddon has been President of the Michigan Association, and a very poor one he made. A President must be staid and serene, and without nerves, which does not describe our Dowagiac friend.

When at his house, some years since, among the many attractions I saw, were three beautiful children, those best ornaments in every home.

Agricultural College, 9 Mich.

[Mr. Heddon is well known the world over, as a successful apiarist who has thoughts and methods of his own, and that he is not afraid to express them, even if the multitude favor the opposite. His fort and special success lies in the direction of mechanical invention. Nearly all of his devices are practical, and will live after he is gone.—Ed.]

Translated from the French.

Honey Necessary to Produce Wax.

G. DE LAYENS.

In making the experiments which I am going to describe, I have not made it a point to ascertain whether or not bees build their combs more economically with one kind of sugar than with another, my object having been simply to arrive at the quantity of honey used by bees working in an apiary at their free will, and at a season when they take to comb building with more readiness than in any other.

The experiments hitherto made in this direction differed so much among themselves that it was impossible to arrive at a reliable conclusion. It is this fact which induced me to recommence these experiments, taking for basis the various plans previously adopted. But at the very outset two questions arise which in practice have often been confounded, but which must be distinctly separated, viz:—

1. Even when honey is plentiful, it is not advantageous to induce bees to produce wax, although it may be done at a small cost, because, in the first place, if only a few empty frames are given to a strong colony among a good supply of ready-made combs, within which to store the incoming harvest, and yet to find sufficient scope to give vent to their comb-building propensity, they would be almost sure to build drone-comb. On the other hand, if plenty of comb building is given them by reducing them, as it were, to a combless colony, they would no doubt build numerous worker-combs, but they would not have sufficient cells wherein to store the incoming honey, the production of wax not being in proportion to the collection of honey. Therefore, at the time when honey is plentiful, it is not advisable to set bees to comb building.

2. When, on the contrary, the honey yield is great, is it advantageous to have bees produce wax? This is the point I have tried to solve.

The basis of what was considered to be the best experiments made consisted, briefly put, of selecting 2 colonies, say A and B, of the same strength, one of which—A, for instance—was supplied with empty frames, and the other, B, ready-built combs. A little later on, the honey gathered by B is weighed; the same with that found in A. This done, the quantity of wax produced is ascertained; the difference between the weight of the honey compared with that of the wax produced represents the proportion between the honey and the wax. This method is, however, incorrect in several respects.

1. Even supposing that by some chance one queen were as prolific as the other, they would not lay the same number of eggs within a certain number of days, because one of the hives afforded, from the very first day, all the desired accommodation for egg laying, which would not be the case with the colony whose combs are built at a slow pace. Therefore, at the end of the experiment there will be more brood in one than in the other; hence a difference also in the consumption of honey, a difference which is left out of reckoning, and—

2. It was generally supposed that by choosing from an apiary 2 colonies, apparently of the same strength internally, and of similar activity externally, one could compare the work done by either of them without risk offering to any great extent; but very frequently this is not the case as I will presently show.

Having examined 2 colonies, which for the present purpose I will call No. 1 and No. 2, and having, moreover, ascertained that the strength of the latter was about twice that of the former, I reduced them both to the condition of a swarm. The bees, finding themselves now free to set about bringing in their harvest, under identical circumstances—for both colonies had been deprived of their brood—at the closing of each favorable day I used to take the exact weight of the honey brought in. No. 1 had stored kilos 2,140, and No. 2 kilos 2,030, that is, nearly as much as No. 1, whereas it ought to have gathered only about half that quantity.

This year Mr. Bertrand witnessed results similar to this, in the opposite direction. A colony of his had gathered kilos 37 of honey, whilst another, of about the same strength, had brought in, during the same interval, kilos 18. The question with me now is, not to find how to explain this, but rather to show that all experiments having for basis the simple comparison of actual work done by 2 colonies of the same strength cannot be relied upon.

I will now explain, therefore, what were the circumstances I placed myself in when I undertook my experiment.

1. My colonies had been allowed to work freely in the apiary, without interferences, so that nothing could be altered in the natural order of their duties.

2. My experiments were made at a season when temperature was high (maximum at least 20° Centigrade), this being the temperature which bees, in their natural state, choose for the production of wax.

3. I had also selected for my experiments a season when honey was rather scarce, so as to be sure that the colonies which were building, as well as those which were not, had sufficient room in their combs for storing all the honey they could bring in.

4. I experimented on 2 colonies in my apiary which differed in strengh as well as in quantity of brood, but which, judging from external appearance, both worked with about the same amount of energy.

Now, these 2 colonies, which I will here call A to the strongest, and B to the less stronger, were both reduced to the condition of a swarm. To A, seven built frames were given, between which I inserted empty ones. This I did in order to feel that the bees were obliged, as it were, to build, and that at the same time there was a sufficiency of built-combs to receive the incoming honey, and that, moreover, the egg-laying propensity of the queen would not be checked for want of room. To B, I gave eight ready-built frames; here the bees could not build combs for want of space.

5. I made two experiments, one after the other, and each one lasted exactly eight days. At the end of the eighth day all the combs were taken away from the hives and replaced by others, but the order was reversed; here, then, B was placed in the necessity of building combs, whereas A was prevented from doing so. This crossing system is an important one, as it permits, whilst experimenting on any two hives, of obtaining *data* for comparing, by simply adding, at the end of the experiment, the differences which are noted between them.

6. At the conclusion of the experiments, the honey collected by the colonies A and B (which did not make any wax) was added together; so was also the honey of the colonies A and B (which made wax). Lastly, the quantity of wax made by the 2 colonies was added together. Owing, however, to great dampness, the honey gathered during the sixteen days of the experiment contained a considerable quantity of water, consequently at the end of the time none of the cells had been sealed up. The honey, which was very thin, contained, therefore, more water than that in the sealed-up cells. In order to neutralize this misleading circumstance, I ascertained the thickness of the sealed-up honey as well as that of the thin liquid one (honey) which had just been brought home. This done, I added a sufficient quantity of water to the honey which had been sealed up by the bees, until it had been brought to the same degree of thickness of that which had not been sealed up. By these means I was enabled to arrive at the extra quantity of water contained in the honey which had just been gathered, and I deducted this quantity of water from my calculations. Finally, the difference in quantity of honey gathered by the colonies which built combs and that of those which did not build, indicated the weight of the honey consumed in the production of a given weight of wax.

7. During the sixteen days my experiments lasted, the queens did not lay a uniform number of eggs, as they were not of identical fecundity. Nor did it happen that during the same period the laying of eggs by these two queens did progress with the same disproportion; as a result of this, in the colonies which had not been building, 16,064 eggs were laid, whereas in those which had been building, the number of eggs laid was 16,634, or as near as possible the same number. This small difference of brood represents a quantity of honey consumed the weight of which must be added to that gathered by the colonies which had been building comb. But as the eggs did not open until the end of three days, and that it was only then that they began cousuming honey,

the number of larvæ which had been fed was 358. It is the honey consumed by these that must now be arrived at.

According to the investigations made by Berlepsch, 47 grammes of honey and pollen would have sufficed to feed these 358 larvæ until they closed themselves up in their cell. Other experiments, made by myself, show that to feed their brood bees use about as much honey as pollen, consequently 25 grammes will be the maximum quantity of honey used up by my bees in the partial feeding of this brood, of which only a few cells were sealed over.

We find, therefore, that the difference in the quantity of honey gathered was one kilo and 202 grammes. That of wax produced 191 grammes. My bees had, therefore, used 6 grammes, 3 of honey in order to produce one gramme of wax.

In previous experiments my bees had started comb-building on eight frames, and as the honey yield was an indifferent one, with the exception of the first day, they built almost worker comb throughout—I say almost, or nearly so, because in a corner of the largest comb there were to be found a few drone-cells; the latter had been built the first day, when the honey yield was greatest, almost two kilos having been brought in.

It will be seen, therefore, that in practice it is possible to get bees to build worker-combs rather economically by feeding them with a cheaper kind of honey, say some of the foreign kind, to be had on the Havre market at from 50 to 60 francs the kilos. But, to obtain this result, three things are essential, viz:

1. A rather poor yield of honey.
2. The removal of all the brood-combs of a hive, to be replaced by empty frames, the latter to be placed between the full ones. The brood-combs removed, will be given to a weaker colony.
3. Never to induce comb-building unless when the temperature is high.

Plowman.

A Plea for Better Bee-Keeping.

C. H. DIBBERN.

While I am free to admit that much has been accomplished in the past twenty years to place this industry on a higher plane, yet we cannot shut our eyes to the fact that very much still remains to be done.

Perhaps the best way to get an idea of the present condition of bee-keeping, is to visit some of our large towns, and inspect the honey offered for sale by dealers. I made such a visit recently, and this is about how I found things:

Calling at a large grocery house I inquired if they had any comb honey. I was assured that they had some that was very nice, and followed the clerk in the back room, was shown some boxes apparently made from old fence boards, without planing. The honey was of good quality, but in sections about 7 inches square, and made of material varying from ¼ to ½ of an inch thick. They had not been scraped of propolis, and some of them had evidently been used a number of years. It was easy to see that no separators had been used to compel the bees to build straight combs, as it was very much bulged, and in handling and shipping some of the combs had got jammed together, or the cappings were scraped off in trying to get the sections out, and the cases were leaking all over the floor. When I objected to the honey on the above grounds, I was told that it could not be helped, that the honey was all right and clean, and that the people did not eat the boxes, anyway.

The next place I visited, I found some California honey in Harbison sections. This was nice and white, but it had evidently been roughly handled. A dozen crates were piled upside down in a tub, and were leaking a good deal, as the 2 or 3 inches of honey (and flies) in the bottom of the tub testified. I objected to this as not being what I wanted, and they then told me they were disgusted with the honey-trade and thought of giving it up.

Next I tried the much-abused commission man, and, seeing a large pile of nice, new crates with some very fine honey showing through the glass, I thought, "now I had found honey that I would find it hard to find fault with." Getting into conversation with the man in charge, he kindly showed me around, and on my request looked into several shipments. The first lot was of one-pound sections, in nice, new cases. Opening a case, the honey was nice and straight in white-wood sections, cleaned of every particle of propolis, and the sections resting on little strips of wood, placed inside of little paper pans in the bottom of the case, to catch any dripping honey, but there did not seem to be any.

"These ten cases," said the man, "are all we have left of a hundred cases that came in yesterday morning, and it has all been sold at 15 cents per pound." I remarked to him that it seemed to be a fancy price, that the papers only quoted white clover honey at 10 and 11 cents. "That is very true," said he, "but this is what we call a fancy article, and the name of the producer is on every case, and he is a man that we can depend on, every time. Here is a lot that has been here for a month from a neighbor of his that appears to be just as good, but please open a case and see." I did so, and found the honey nice, only on the outside next the glass. Back of this were a lot of dirty looking sections, filled with all kinds of honey from white clover to "honey-dew." The combs were bulged, and had the cappings more or less damaged by slapping together in shipping.

"These 17 cases are what remain of 20 we received a month ago. We have tried hard to sell it, too, but if we sell 5 cases we generally get back 4 of them. We are now offering it at 8 cents, and I am sure when our account sales of this lot is rendered, we will be roundly denounced as scoundrels."

Who is the scoundrel?

Just now we hear much about the depression and low prices of honey. Many are discouraged, and talk of trying something else. Well, perhaps the sooner the careless or the dishonest leave the pursuit the better. Talk about establishing a uniform price for honey! how can it be done when there is so much difference in quality, style of packing and "honesty" of grading. I myself could have sold, during the past season, thousands of pounds of choice honey for other bee-keepers, could I have depended on getting such honey as would fill my orders.

Now, bee-keepers, as another season is just commencing, let us all form new resolutions. Let us determine to have only the best. We want the most convenient hives, both for us and the bees. We want nice, handy cases on the hives. We want to throw away all old, soiled sections —it will not pay to use them when we can buy new ones so cheap. We must use separators of some kind to secure nice straight combs; in fact we must determine to have everything the very best, and then there will be no trouble to sell the honey.

Milan, Ills.

Language of Bees—Old Testimony.

REV. JOHN THORLEY.

As to the time of second swarms, we generally fix it to a day or two, and know when to expect them, by means of those distinct, peculiar, and musical notes, which are always heard two or three days before they rise.

Bees certainly have a language among themselves, which they certainly understand, though we do not, or at best, very imperfectly. Eight or nine days after the prime swarm is departed, one of the young princesses, addressing herself in a very humble and submissive manner to the queen-mother, petitions for leave to withdraw, and erect a new empire, with a select body of the populace.

The regent for a time seems silent, and for a day or night there is no answer, nor any grant given; however, the young princess, bent on crown and kingdom, continues her suit, and at last succeeds. The second night you may hear the queen, with a very audible voice (being an eighth) giving her royal grant, and proclaiming it (as by sound of a trumpet) through the whole kingdom. Her voice is a grant, her silence a denial. And the day following, the weather being tolerable, you may expect the swarm. It is delightful to attend to those peculiar sounds or notes, being an eighth chord, which is truly harmonious. Dr. Butler has taken pains to show us the compass the song contains in the gamut, or scale of music; the queen composing her part, or bass, within the four lower cleffs; and the princess hers, a treble, in the four upper cleffs. The swarm ready to come fourth, the notes are louder, quicker, and more constant. When the greater part of the swarm is out, the music is at an end, and we hear no more. Sometimes the royal grant is revoked, and then all the royal issue are slain.

As every general rule has an exception, I must tell my reader that on June 2, 1716, after a swarm came out, that very evening and the two following, they gave notice for a second swarm, which rose the fifth day, when I joined them to the first. That night and the next, they called as before, and rose twice; I returned them both times, at each taking a queen from them. A few days after, they rose a third time, settled, yet went home again. Finally, they rose a fourth time, when I took two queens from them, putting them back to the old colony, after which they came fourth no more. I mention this as being very singular, and what I never observed before nor since.

I perfectly remember, though many years ago, I heard these previous notices given for a first swarm, which are exceedingly rare (that being the only time I ever took knowledge of them), and in a colony too; where placing my ear close to the top of the uppermost box, I could very easily and distinctly hear the least noise, and what was acting about the throne. And just as the swarm began to rise, there seemed to be the greatest lamentation among the branches of the royal family. Notes of woe expressive of the deepest sorrow, as though they were taking an eternal farewell of one another. It was really in some measure moving and affecting.

I could resemble it to nothing better, than to the dearest relations, and most loving faithful friends taking a final leave of each other, with the tenderest, most affectionate embraces, and with floods of tears. But to return.

With the second swarm, two of the royal princesses go forth very often, and sometimes three, in hopes to gain a kingdom. That princess, who is so happy as to get the throne first, is proclaimed queen, and crowned; the rest are all slain, as I have found them the next morning.

England, A. D. 1740.

For the American Bee Journal.

The Uses of Beeswax.

HORACE BANKS.

Dear Editor:—A few weeks since I found the following article on the above subject, taken from an old copy of the New York *Grocer*, where it was headed, "A chapter on wax; its uses for manufacturing and artistic purposes—extent of its production, etc." I think it will be interesting to many of your readers, and hope to see it in the American Bee Journal. Here is that portion of the article relative to the uses for beeswax:

"The uses for wax are numerous and important. Its property of preserving tissues and preventing mold or mildew was well known to the ancients, who used cere-cloth for embalming, and wax for encaustic painting, as in the wall pictures of Pompeii. Wax candles and tapers play an important part in the processions and ceremonies of the Roman Catholic church. Wax is used by the manufacturers of glazed, ornamental and wall papers, and on paper collars and cuffs for polishing the surfaces. It is used in varnishes and paints, and for the "stuffing" of wood which is to be polished, as for pianos, coach work, fine furniture, and parquet floors.

"Electrotypers and plasterers use wax in forming their molds. Wax is an important ingredient in preparations for covering surfaces of polished iron and steel to prevent rust. Combined with tallow, it forms the coating for canvas and cordage to prevent mildew, as in sails, awnings, etc. Artificial flowers consume much wax, and, despite the introduction of paraffine, ceresin and mineral wax, its use appears to be extending. One of the oldest of its applications is in the laundry, and in polishing woodwork. The wax-product in the United States is stated to be 30,000,000 pounds annually, and increasing—worth in money at least $6,000,000. Of this about $700,000 worth are exported, and about $1,200,000 worth of honey also goes abroad. The total product of honey and wax is worth at present in the United States nearly $15,000,000."

These figures on the honey crop are now very much enhanced, and I leave it for you, Mr. Editor, to give us the latest statistics.

Baltimore, Md.

[The annual honey crop is about one hundred millions of pounds, and its value is probably about ten millions of dollars. This would give for the annual value of the production of honey and beeswax, about sixteen millions of dollars.—Ed.]

Read at the Vermont Convention.

How and Why Plants Produce Honey.

PROF. W. W. COOKE.

Self-fertilization takes place where the seed-vessel and pollen are together on the same flower, and come in contact, and cross-fertilization occurs when pollen from one flower is carried to the seed-vessel of another flower. The reasons why nature desires to cross plants is to secure greater height, weight and vigor, and more seeds. Most plants are spoiled by self-fertilization, the same as close breeding in animals; some plants usually self-fertilize, as the pea, lettuce, onion and ground-nut; but large, new varieties of peas are obtained by cross-fertilization. The means whereby nature obtains cross-fertilization are three, wind fertilization as in grasses; insect fertilization as in most flowers; as in honey-suckles. The prepotency of the pollen from another plant over that from the plant itself, is among the curious features of plant life. Plants also obtain cross-fertilization by having the pollen and seed-vessels on separate plants, as in the case of willows. On separate parts of the same plant, as in corn when in the same flower it is attained by having pollen ripen before the seed vessel, or *vice versa*, as in the plantain, fire-weed, gentian and verbena. There must be some great benefit in cross-fertilization to offset the great waste of valuable pollen in some flowers, and small, closed flowers of violet have 100 grains, while the peony has three and one-half million grains.

In relation to the means taken by nature to entice insects to plants, it is to be noticed that wind-fertilized plants are dull in color, destitute of odor, and contain no honey, as in the case of pines and all conifers, hemp, hop, and grasses. Large conspicuous flowers are visited much more frequently, and by a greater variety of insects than small inconspicuous ones. Bees probably distinguish flowers by bright-colored leaves. When bright blue flowers were cut off in an experiment, bees crawled over to get other flowers. When the small upper leaves, which bees do not use to stand on, were cut off, the bees visited the flowers as usual. Odors attract insects, as shown by flowers covered with a muslin net. When possessed of odor they do not so much need color. Fourteen per cent. of white flowers have a sweet odor, while only 8 per cent. of red ones have it. Honey was certainly put in flowers to entice insects. When the honey-sac was cut off a large number of flowers, more than half of them were not visited by insects, and produced no seed. Even dark colored streaks on colored leaves of flowers are believed to be for guiding the insect to the honey-sac, so that it can suck a greater number of flowers in a given time, and hence produce more perfect cross fertilization. As honey is of use to plants only as it helps to cross-fertilize them, it is always placed where it will aid in this.

When mature, the pollen-vessels and the seed-vessels always stand in the pathway leading to the honey-sac. A certain amount of heat is necessary for the formation of honey. With some flowers, if the sun ceases to shine for half an hour, bees will cease to work on them for lack of honey. In most plants, the construction and position of the pollen-glands and the seed-vessels are evidently arranged with the evident intention of making the bees rub against them when it seeks the flower for honey. In such cases the pollen is moist or glutinous. In wind-fertilized plants the pollen is dry and powdery, and the seed-vessel is usually sticking out and hairy to catch the pollen.

Many flowers are irregular, one or more leaves flattened to serve as a landing place for the bee, and their honey-sac is on that side of the flower. Violets have large conspicuous flowers adapted to cross-fertilization, and these flowers are very fragrant, and have much honey. In the harebell the honey-sac is at the bottom of the bell. The pollen-vessels open first and shed pollen into the bottom of the bell around the honey-sac. The seed-vessel remains closed. Several days later, when the pollen is dead, the seed-vessel opens and receives pollen from other flowers. In the daisy, one head has many flowers. The outer white leaves serve as an attraction and resting-place, and produce no pollen. Inner flowers have pollen-vessels in the form of a hollow tube, into the middle of which the pollen falls, and is pushed up and into view by the tip of the seed-vessel. Afterward, when the seed-vessel is full grown, and most of the pollen has been brushed off, the top opens and exposes the inner face to the seed-vessel to pollen brought from other plants.

In a common garden-bean, the stamens shed pollen on the middle of the style. One of the flower leaves is wound into a tube containing both stamens and style. These remain inside the leaf until a bee alights on the wing petals, then its weight presses down the blossom, and first the end of the style touches the bee and it gets any pollen which it has brought from the last-visited flower; next the style sticks out still further, and the pollen on its middle hits the same spot and prepares the bee for the next flower.

In the lady-slipper the honey-sac is at the bottom of the slipper. The bee enters the large slit on the upper side of the slipper. Edges are inflexed so that the bee cannot creep out the same way. There are two small holes near the stalk through which it can get out. In doing so it must brush against the seed-vessel and pollen-masses. If the pollen-masses were first, the plant would be self-fertilized, but in fact the seed-vessel comes first and pollen is carried off to be left on the stigma of the next flower it enters.

Orchids have a sticky material that will set at once; as soon as the insect's head touches it, the honey is free in the sac. When the sticky material requires more time to harden, the honey-sac is empty and the honey is contained in the lining of the sac, and the bee has to bore through the wall of this lining in several places before it can get all the honey.

Bees have habits which help cross-fertilization. They work on flowers of one kind as long as they can before changing to another kind. This is not to help the plant, but because they have learned how to stand and work better. Bees search for honey by instinct, by experience, since they work as soon as they emerge from the pupa state. They search introduced plants as readily as native flowers which do not secrete honey, and often try to suck honey out of the honey-sacs that are too long for them to reach. Bees cannot tell without entering a flower whether other bees have exhausted the honey, and hence the flower is more perfectly cross-fertilized. Mr. Miller found that in a certain set of blossoms visited by a bumble-bee, four-fifths had been previously visited.

The great number of flowers which bees can visit in a short time greatly increases the chances of any given flower being cross-fertilized. In one minute a bumble-bee visited 24 of the closed flowers of flax. In 15 minutes a single flower on the summit of a plant of evening primrose was visited eight times by various bees. In 19 minutes every flower on a certain flowering plant was visited twice. In one minute six flowers of a harebell were entered by a pollen-collecting bee, for when collecting pollen they work more slowly than when collecting honey. It was estimated at one time that the flowers in a certain flower-bed were each visited 30 times daily during the week or more that they were in blossom. Bumble-bees in collecting honey fly at the rate of ten miles an hour.

Bees have other habits which are directly opposed to cross-fertilization. In flowers having several honey-sacs, if a bee finds the first one it searches is empty, it does not wait to search the others. Bees often get the honey by biting holes in the blossoms and sucking it out of the side. Whole fields of red clover have been examined in which every flower was thus bitten. The biting is done by bumble-bees, and then hive-bees suck through the holes. Bees are very successful in thus biting holes, always hitting the spot outside just over the honey-sac. In all such cases the plant is not fertilized.

The facts are that plants are very thoroughly fertilized by insects. A gentleman marked 310 plants which were incapable of self-fertilization, and carefully put pollen on the stigmas of each day after day; he left an equal number to the insects. His produced 11,237 seeds, and the bees 10,886, a difference of but one in 35, and this difference is fully made up by the fact that he worked during a cold spell with continued rain, when the bees did not. Of white clover, 10 heads unprotected gave nearly ten times as many seeds as 10 heads covered with gauze; 20 heads covered produced only one poor seed, and 20 heads open gave 2,290 seeds. Of red clover, 100 heads covered gave nothing, and 100 heads open produced 2,720 seeds. Insects will abundantly cross-fertilize plants growing one-third to one-half mile apart.

In the United States, hive-bees never suck red clover. In England they only suck it through holes made by bumble-bees. The clover cannot be fertilized by the hive-bee—it is too small—but it is cross-fertilized by the bumble-bee. Hence one gentleman has made this statement: The safety of England depends on the number of cats she keeps. He proves his proposition thus: Without the aid of bumble-bees the red clover could not be fertilized. Bumble-bees make their nests on the ground, where they are the prey of mice. Cats destroy the mice and give the bees a chance to live. Hence he reasons, no cats, many mice; many mice, no bumble-bees; no bees, no clover; no clover, no cattle; no cattle, no beef; and without beef where would the Englishman be?

University of Vermont.

Local Convention Directory.

1887. *Time and place of Meeting.*

May 27.—Darke County Union, at Greenville, O.
J. A. Roe, Asst. Sec., Union City, Ind.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Discusssion on Marketing Honey.—Dr. C. C. Miller, Marengo,δ Ills., writes thus on May 17, 1887:

Friend Newman:—In reply to your suggestion on page 275, the matters mentioned for discussion are certainly important, and have awakened so much interest, that in the absence of any objection we may consider it *settled* that they will be taken up for discussion at the convention of the North American Bee-Keepers' Society at Chicago, next fall.—C. C. Miller.

[This settles it then, that at the next meeting of the North American Bee-Keepers' Society at Chicago, there will be a full discussion of these topics, viz: "The cost of production, prices at which honey can be sold at a profit, methods of putting up honey, commission men, cash buyers, home markets, city markets, foreign markets, development of markets, distribution of our products, associations, corners, etc." Let all prepare to exhaust the subject.—Ed.]

White Clover in Bloom.—Wm. Robson, Rolla,⊙Mo., on May 10, 1887, says:

White clover is beginning to make pastures look white. We have plenty of rain now, and bees are tumbling over each other in their work.

Bee-Keeping in Florida.—Dr. Jesse Oren, La Porte City,o→ Iowa, on May 12, 1887, writes:

I would say in regard to Mr. O. O. Poppleton's bees, that he had but one colony left on March 30. But his loss was a *gain!* How? In this way: Mr. Sheldon, of New Smyrna, Fla., gave him 100 colonies with honey enough to carry the bees over the summer of 1887! Mr. Poppleton is to return the colonies at the end of the year, Mr. P. to get all the *proceeds*, whatever that may be. Now, as Mr. Sheldon has furnished all needed honey to feed, Mr. P. will utilize all his combs and be ready for next year's mangrove bloom, if nature brings them out. Florida is no bee-*State* like Illinois and Iowa—but is a poor State for bees.

Sound of Bees in Winter.—Elias Fox, Hillsborough, Wis., on May 12, 1887, says:

I would say in reply to Mr. Demaree, that years ago, when my father kept bees in box-hives and wintered them on the summer stands, so far as the sound was concerned during the cold weather, one would have said they were dead; but the sound returned with the warm weather. The same is demonstrated even after bees are removed from the cellar. When the mornings are cool, we cannot hear a sound, but as soon as the mercury gets up to about 40° or 45°, we will hear the humming commence.

Clover Blooming.—Jos. M. Brooks, Columbus,♀ Ind., on May 14, 1887, writes:

My bees are in good condition, but are short of stores. The clover is commencing to bloom.

Noise of Bees in Winter.—Thos. A. Anderson, Big Spring,⊶ Mo., on May 12, 1887, says:

In 1884, 1883 and 1882 I wintered bees out-doors—in 1883 and 1882 with single stories covered with quilts, and the second story filled with sawdust (10-frame Langstroth hives); in 1884, in single stories without any protection (I use honey-boards); and invariably when the mercury reached 10° below zero, and lower, they could be heard 10 feet and further away, and wintered well.

Extracted Honey.—J. M. Shuck, Des Moines,⊶ Iowa, says:

What shall we call it? Honey by any other name would taste as sweet, but there is a difference among the "craft" as to what we should name it. My position is that it needs no "ear-marks," so to speak. Call it "honey" and be *true*. It *is* honey in its purest form. Let our market reports quote "honey" at so much per pound, and "comb honey" at *its* market value, and all will be understood.

Legislation on Priority of Location.—Dr. C. C. Miller, Marengo,♂ Ills., writes:

I am at present a bee-keeper rather than a writer, and have only time for a word in reply to Mr. Clarke. Whatever deductions he may have made (and I cannot so much wonder at his misunderstanding my position, since so many others did so), the fact still remains that I never desired legislation in favor of priority of location, nor advocated it, and after having repeatedly and emphatically said so, (as quoted by Mr. Clarke himself), it seems to me that he might have accepted as my true position that which I gave in plain words that could not well be misunderstood, rather than to still cling to his previous misunderstanding.

Bees Building up Fast.—O. P. Miner, Taylor Centre,⊙ N. Y., on May 12, 1887, writes:

The mortality among bees in this section has been about 30 per cent. The members present at the Cortland Union Bee-Keepers' Convention, on May 10, reported 640 colonies left out of 916, last fall; with many of them weak. Those in chaff hives and cellars have suffered in about the same ratio. My own loss was 3 colonies out of 10 in chaff hives. Last spring my bees gathered the first pollen on April 14, and this spring on April 26. They are now building up quite fast, and bee-keepers anticipate a more favorable season for honey than the last was.

Honey Crop a Failure for 3 Years.—C. M. Davis, Denison,♂ Tex., on May 15, 1887, says:

Bees are doing quite well. We have had frequent rains, and the prospects are good for a harvest of honey; the farmers say crops never looked better. The honey crop in northern Texas has been a failure for 3 years.

No Roaring in Winter.—J. F. Latham, Cumberland,♀ Me., on May 16, 1887, writes:

I have always wintered my bees on the summer stands, and I have never known them to "roar" or make any perceptible noise during the coldest weather—in my eight years of bee-keeping.

Bees in Splendid Condition.—N. Staininger, Denison,⊸ Iowa, on May 5, 1887, writes:

All of my 81 colonies of bees wintered splendidly, 70 full colonies coming out strong and healthy, and 11 nuclei; one colony starved, 3 queens were lost, and all of the balance are in good condition. I have plenty of drones flying, and some colonies have queen-cells started, with 8 frames of brood. The temperature was at 46° to 48° all winter. I expect a good honey harvest, if we get rain soon.

Heard the Bees Roaring.—James Irwin, Columbus Grove,⊸ O., on May 19, 1887, says:

I wintered my bees on the summer stands with but little protection, with a temperature ranging from zero down to 15° below, and I could hear them roaring from 8 to 12 feet from the hive.

Winter Losses of Bees.—Mr. Wm. Cleary, Algona,♂ Iowa, on May 12, 1887, writes:

On page 123 I wrote that I was wintering 27 colonies, and that I weighed them when put into the cellar on Nov. 16, 1886, and weighed them when put out on April 7. They shrunk in weight about 4½ pounds each on the average, but the dead bees were in the hives yet. I lost 7 colonies, 4 in the cellar, and 3 out of 4 in tenement hives. They are breeding up fast now, and have gathered considerable honey. Almost all the bees in this county died the past winter. One man lost 54 colonies out of 60; another lost 40 colonies—all he had—and several others lost all they had. I saved the best per cent. of any one in this county.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—
BEESWAX.—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.
BEESWAX.—23@24c.
May. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¾@5 cts.; light amber, 4½c.; amber, 4¼c. Comb, white, 12@14c.; amber, 7@9c. Demand good.
BEESWAX.—23c.
May 8. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsealable at 8@9c. Extracted, 5@6c.
BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4½c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.
BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4½c. Market quiet.
BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—We quote: Finest white 1-lb. sections, 12@12½c.; choice white 1-lbs., 11@12c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; good white in kegs and barrels, 6@6½c.; dark, 4 to 4¼c. Demand good and market firm.
BEESWAX.—25c.
May 4. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@6c. Sales large and demand good.
BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Very little extracted in the market.
May 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.
BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.
BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
Apr. 21. C. F. MUTH & SON, Freeman & Central Av.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

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At One Dollar a Year.

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BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

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We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

The Large New Office and warehouse of W. H. Fay & Co., manufacturers of Fay's Manilla Roofing and Carpeting, Camden, N. J., was entirely destroyed by fire last night. With commendable energy they have gone to work and secured temporary quarters, and are to-day ready for orders. Fortunately these gentlemen have a very large stock at their factory, which is in another portion of the city, and they assure us that their patrons and agents throughout the land will receive their goods as promptly as though no fire had occurred.—*Philadelphia, May 14.*

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer.* It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Some Additions to our Catalogue.—WHITE POPLAR 4-PIECE DOVETAIL SECTIONS for a fancy article of comb honey (4¼x4¼ inches—7 to the foot)—in packages of 500 for $2.50; 1,000 for $4.50.

ENAMELED CLOTH, for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Advertisements.

ITALIAN Queens by return mail: Tested, $1; Untested, 75 cts. Two-frame Nuclei, $1.50; 3-frame, $2. BEES by lb., 75 cts.
21Atf **GEO. STUCKMAN, Nappanee, Ind.**

FINE Tested Italian Queens, $1.00 each; Untested, 75 cts. each or **five** for $3.00. **Seventy-five** cts. per lb. for BEES. Can ship promptly. Never had foul brood.
21Atf **I. R. GOOD, Nappanee, Ind.**

500 POUNDS FOUNDATION, at 35 cents per pound—5 to 7 feet to the pound. First orders get it. Sample free.
Address, **S. & A. M. SMITH,**
20A2t MATTOON, ILLS.

Alley's Queens!

Warranted, $1; Select, $1.25; Tested, $1.50

AMERICAN APICULTURIST 1 year and Select Queen, $1.50. **How to Rear Queens** (300 pages, 100 Illustrations, bound in cloth), by mail, and one Tested Queen, $2. **How to Get Comb Honey,** 20 pages, 10 cents. Address, **HENRY ALLEY,**
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35 cts. 35 cts. 35 cts.

ORDERS filled now for Choice BROOD FOUNDATION at 35 cts., and LIGHT for comb honey, at 45 cts. All Foundation is made of the best yellow beeswax.

GUSTAV A. PROCHNOW,
20Atf MAYVILLE, Dodge Co., WIS.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS received scores of unsolicited testimonials in regard to the excellency of his little book—

"THE PRODUCTION OF COMB HONEY;"

and it is with pleasure that he publishes the following selections:

Success to the little book of fresh and live ideas. —E. E. Hasty, Richards, O., March 28, 1887.

It is the best book on the production of comb honey I ever read.—F. W. Holmes, Coopersville, Mich., March 29, 1887.

I congratulate you on getting up such a complete treatise upon the subject in so small a book.—W. H. Shirley, Mill Grove, Mich., March 27, 1887.

Your little work on "The Production of Comb Honey" is a valuable acquisition, and coincides with my experience.—Dr. L. C. Whiting, East Saginaw, Mich., April 23, 1887.

It is simply at the head, in every respect, so far as it goes. All can say that there are larger books—those that cover more ground, but *none* that cover their ground nearly as well.—James Heddon, Dowagiac, Mich., April 2, 1887.

You have given us a valuable work. Though terse, it lacks nothing in completeness. We need more such books—those that give facts in the fewest words. For four years I have practiced essentially the system you give, and know its superior worth.—Dr. G. L. Tinker, New Philadelphia, Ohio, April 17, 1887.

Your book received last night and read through before I could sleep. To be sure I knew the most of it from your articles in the bee-papers, but it is nice to have it all together in a neat little book like yours. You just more than boiled it down, didn't you?—Dr. A. B. Mason, Auburndale, O., Mar. 29, '87.

Friend H.: Have just received your little book. Much that it contains will be found new, I think, with the *majority*. The cost in production must in some way be lessened. You set out the primary elements by which such lessening of cost may be made. I say heartily that I think your little book should be studied carefully by every producer of comb honey. With kind regards—J. E. Pond, Foxboro, Mass., March 28, 1887.

Your lovely little book gave sister and me much pleasure, and the author will please accept many thanks. Since criticism is invited, permit me to say that we reach the conclusion *to soon*. Had the book been less interesting we might not have discovered the fault—might even have thought it a *merit*—and since the book is as good as it is pretty, its brevity is a serious fault; a fault which will surely be amended in the second edition.

With the hope that it may everywhere receive the cordial welcome that it merits, I am yours truly—"Cyula Linswik."

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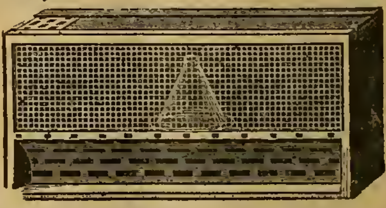

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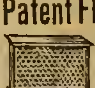

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. June 1, 1887. No. 22.

'Tis Always Morning Somewhere, and above
The awakening Continents, from shore to shore,
Somewhere the *bees* are "humming" ever more.

* * *

Be Always on the lookout to prevent and immediately stop robbing.

* * *

In the Spring, when colonies are building up, bees are less disposed to sting.

* * *

Enlarge Brood-Chambers and give empty combs as required, but keep well crowded and warmly covered.

* * *

At this Season, says a British bee-keeper, "meddle as little as possible, meddle as much as necessary, but always see to it above all things that the bees never for one hour are short of food right up to the time of the clover bloom."

* * *

Amazing Ignorance!—In the *Home and Farm* of Louisville, Ky., for this month we notice the following from a benighted region in the South. It is signed William P. Moore, Dogwood, Ark.:

> Some of my neighbors say that there is no queen-bee, and no one can show her. They say that the drone lays the egg that the bee is raised from; that there is no bee except the drone and the little working bee. I believe that there is a queen-bee, and as I am young in the bee-rearing business, I want to ask the experienced bee-raisers, to please describe through the *Home and Farm* the difference in all the bees. First tell whether there is a queen, and how she looks and what she does; then tell about the drone, whether he stays in the hive all the time or at what time drones appear and disappear. What bee lays the egg, and at what time do they lay it? How long does a bee live? I would be glad to have some persons to answer these for the benefit of myself and neighbors.

Any so ignorant as is described in this item should lose no time, but procure a good Manual and inform themselves on the anatomy, physiology, and habits of bees. There is no excuse for ignorance in this age of light and knowledge.

The Injunction on the City Council of Arkadelphia, Ark., to prevent it from ordering the removal of the bees from within the city limits, as mentioned on page 307, was not sustained. Mr. Clark writes as follows concerning it:

> The Judge ruling that he did not have any right to take up the case and enjoin; stating that he did not know what the Council intended to do, and that the Mayor might not fine me for keeping bees in the city limits; and if he did, then it would be time enough for me to ask for an injunction.
>
> My attorney urged the plea that I wanted to obviate being fined and harrassed. If this case goes against us, it will work a hardship on all bee-keepers in incorporated cities and towns. Now is the time for us all to rally to the front and work to gain this case. If it goes against me it will work a hardship on me, as I have a wife and three small children that are looking to me to row the boat safely.

The Union will stand by Mr. Clark in this matter, and see it through, for it would be very detrimental to the pursuit to allow a decision against bee-keeping to be put upon record on the plea of its being a "nuisance."

The newspapers in Arkadelphia are teeming with items about this case. We subjoin a few which will be spicy reading for bee-keepers at large:

> CITY FATHERS FOOLING WITH THE BEES.—Messrs. C. P. Smith and Z. A. Clark have for some time past been engaged in bee-culture in this city. And now, as to the business of producing honey, they have "millions in it." Others also keep bees within the corporate limits, so that were the census taken of those actually engaged withing our corporate limits as workers, the aggregate number of sober, industrious resident laborers would compare with the population of New York or London, if not with the most densely populous cities of China. But a recent ordinance of our city fathers have declared these denizens a nuisance, ordained in effect that the honey-bee, that so "improves each shining hour," must go. The ordinance, however, is to be hotly contested in the courts, and a suit will be at once begun that whether or no it prove to be "like linken sweetness," will doubtless be "long drawn out." "To be or not to be?" that's the question here just now.—*Gazette.*
>
> PRAYER OF THE BEES.—To you, oh, city fathers, do we come in humble supplication and beseech of you that you will in your great omnipotence, deal with us more gently. Take us by our shielded sting; lead us; show us the gardens of your neighbors, that we may let your peaches and the cookeries of your own dear housewives go unmolested; and we may revel in your neighbor's choicest fruits, and your happy smiles. Oh, teach us the paths you would have us fly. Turn us from wrong and guide us forever while within your fair domain. Or, if you cannot do this, please, in your over-abundance of benevolence, give us one more fair trial in which with our peach-eating mouths we promise not to touch, taste nor handle, in your province, one over-ripe peach. Then, oh city fathers, if we do not keep every letter, syllable or word of our promise, with your ample town purse, banish us to the end of earth, or where we in peace can work to the benefit of our kind masters. QUEEN SHEBEE.
>
> P. S.—Can we gather honey in Australia?—*Standard.*
>
> We will bet our best hat that there is one spotted "razor-back" in the east end of town that will commit more depredations in one day than Clark's 200 colonies of bees will in one year. This bet stands till the *Clipper* is hatless, or that pig comes to a sad end.—*Clipper.*
>
> THOSE BUG-A-BOO BEES.—To bee or not to bee; that is the question. Or rather, it was the question; for in their zealous and often ill advised search for hidden sweets, the honey-makers got into the bonnets of our Council-men, and the result of their buzzing was the passage of an ordinance which is rather rugged when viewed in a literary light, but which is perfectly bee-tight in the opinion of its authors, and would-be tight in the estimation of friends of that improve-each-shining-hour insect, who, it is asserted, have retained eminent legal talent to "bust" that ordinance into smithereens.
>
> There is a gloomy satisfaction in the thought that the bees, against whom this crusade is being waged, are not our native Arkansas species, but bustling, ill-mannered emigrants from Italy. When introduced, these Italian lazzaroni, or buzz-aroni, immediately proceeded to revolutionize the honey-making business.—*Standard.*
>
> Oh, yea, glorious city fathers, now have you done a deed of great valor; since your master-minds have disposed of a question of such great moment. Surely, do you now desire rest? Can you not all pray, "We have done our work; Transport us hence into everlasting bliss! After two long years of unprecedented toil, in which we have over-worked our master minds to such a degree that we are now unable to hold our daily post on the street corners, contemplating the work of two long years; for now who can say that the bees have not been driven from our fair city's limit—a work heretofore thought only capable of being done by the gods. Since they have willingly neglected so great a duty, let those whom we have ridded of the stinging, pestilential rotten-peach-eating bees, sing praises to our glorious name, while through our unpaved streets they unmolested go, inhaling life's invigorator from the beautiful ponds, and listen to nightly-praises sung by their thousands of musical inhabitants. Oh, let sweet perfume wasted from our store-house of myrrh, provided by our submissive merchants in the rear of their stores, greet us with life everlasting."—*Gazette.*

* * *

Combination Section-Case.—We have received from Mr. Hilas D. Davis, of Bradford, Vt., one of his combination section-cases, which he describes as follows:

> It is filled with five different styles of boxes. The largest is designed for hotel use. The one-pounds and three-fourths of a pound sections are for the general trade, while the smaller sizes are designed for Fairs and samples of honey.
>
> In regard to the section-case, I have tested it but one year, and from the results I have to expect at least one-third more honey with less soiling of cappings, and better filled sections.

The "case" contains five sizes of sections: two, three, four, five and six in a row, according to size—29 sections in all. They are all white poplar, as are also the cases, and make a nice appearance. Each row of sections is in a "case" by itself, with a wood separator attached, and the separator is hollow, leaving a passage-way for the bees inside, so as to prevent their running over the combs, as much as possible. The end-pieces are wedge-shaped, and a band slips up over all to hold the sections together. It is an ingenious contrivance, and is placed in our Museum with much pleasure.

* * *

Melissa Officinalis (or Melissa Balm, Bee-Balm, etc.) is probably the oldest recognized honey-plant in the world, being known to the Greeks, as its name indicates, and it is so called on account of the attractions to the bees which the plants are said to possess. Melissa is also credited with being hardy, fragrant and very productive in rich nectar; thriving alike in a dry or wet soil. It is an annual, and blooms profusely the first season.

* * *

Some Men are Ruled by passion, others by compassion. What a world of difference that little "com" makes in our happiness!

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the Journal. If you are in a "hurry" for replies, do not ask for them to be inserted here.—Ed.]

Imperfect Combs in Sections.

Query 424.—While taking off honey last fall, I noticed that quite a large percentage of the narrow sections had imperfect combs, caused by the bottom of the sheet of foundation warping out of the center of the section so far that one side would not be drawn out, thus causing a bad looking comb. How can this be prevented?—S. M., Mich.

By not giving the bees too many sections at a time.—W. Z. Hutchinson.

Use **V**-shaped pieces of foundation.—C. W. Dayton.

That is *just* what I want to know.—G. M. Doolittle.

I cannot tell, for I never have any such work in my supers.—James Heddon.

Avoid crowding the ends of the foundation, and place the sections plumb on the hive.—J. P. H. Brown.

You should never fill your sections down to the bottom with foundation. The thin grades of foundation invariably stretch a little, and thus caused your trouble. Read "A Year Among the Bees" on this subject.—Dadant & Son.

By using a **V**-shaped starter with separators. Some use with the best of success starters put in this way—X, fastened at the top and bottom of the section.—H. D. Cutting.

Strong colonies, a full honey-flow, and not too much surplus room are pretty good preventives. A starter of foundation at the bottom as well as at the top of the section will also help.—C. C. Miller.

By using starters of foundation instead of full sheets. Then do not use narrow sections even with open sides. Bees store too much pollen in narrow sections, even if they were otherwise desirable. I gave up my favored system of continuous passage-ways on that account. After a large experience, both with and without separators, I can say nothing favorable of narrow sections.—G. L. Tinker.

It is possible the foundation was imperfect, by the cells being heavier on one side than the other. A dozen reasons might be given for the trouble; all of which might be wrong. One trouble with the queries sent to this department is, that too little data is given to enable an intelligent answer to be made. All the facts should be known, and even then the answers may be all "guess-work."—J. E. Pond.

I never had such an experience as you mention. If the sheets of foundation are fastened in the sections, so as to swing clear of the sides and bottoms of the sections, nothing would produce the effect you describe but an unlevel hive, unless the colony was so weak in numbers that they could occupy only one side of the sheets at a time, and by the weight of the honey press the combs out of position. The latter is hardly probable. You may never see the like again.—G. W. Demaree.

Give less room for surplus at one time; and either give the bees triangular pieces of foundation, or leave ½-inch space at the bottom.—The Editor.

Mice in Hives in Winter.

Query 425.—My bees wintering on the summer stands are troubled by mice. What can be done to prevent this?—W. M. B., New York.

Try poison.—C. C. Miller.

Use perforated zinc. Or else reduce the size of the opening by the use of wire-gauze.—A. J. Cook.

Make the entrances so small that the mice cannot enter.—W. Z. Hutchinson.

Never have the entrance over ⅜ of an inch wide, and mice will not trouble you.—H. D. Cutting.

We make our hive entrances only ⅜ of an inch deep, and avoid all trouble from this cause.—Dadant & Son.

Use perfect hives with a ⅜-inch entrance protected by metal.—C. W. Dayton.

Tack tin up in front of the entrance with slots cut in large enough to admit the bees, but not the mice.—J. P. H. Brown.

Use tin or other metal to contract the entrances so that the bees can get out, but a mouse cannot get in.—G. M. Doolittle.

Contract the entrances of the hives to such capacity that bees, but not mice, can pass. If they gnaw their way in, use metal (tin) contractors.—James Heddon.

I have had trouble with these little pests for two or three winters past. The only remedy I know of is to make the entrance so narrow that the mice cannot get into the hive. A strip of tin or of wood fitted over the entrance keeps them out for me.—G. W. Demaree.

There is a field-mouse a little larger than the common house-mouse that is very fond of bees. The house-mouse will also eat them, but is sometimes stung to death, as I have seen. I use very large entrances, but would use wire-cloth guards if troubled by the field-mouse, removing them whenever the bees could fly.—G. L. Tinker.

The remedy is simple enough, but the question reminds me of "Pat" when helping to build a "railroad" fence. A piece of board was found to be too "long inthirely," and poor Pat says: "What shall I do wid it? Shure an if it was too short I cud sploice it." The simple remedy is to make the entrance too small for the mice to get in; bees can go where mice can every time, but mice cannot go where bees can. I suppose the story of the cat and kittens of the Poet Watts is familiar, so I won't tell it, though *apropos*.—J. E. Pond.

Make the entrances to the hives only ⅜ of an inch deep; if they gnaw the wood to get in, use tin contractors.—The Editor.

Superseding Queens.

Query 426.—1. How old ought I to allow queens to become before superseding? 2. What is the most approved method of superseding? 3. What time should it be done? I know how queens are reared, but I do not know how to keep them so as to be ready for an emergency.—H. R., New York.

1. About two years. Some queens are good for a longer time. 2. Introducing young laying queens. 3. The best time is in the spring.—J. P. H. Brown.

1. Let the bees attend to that. 2. The bees do it best. 3. Queens are most often superseded in July and August.—G. M. Doolittle.

1. Leave that to the bees, so long as the queens do well. 2. Remove the old queen and cage the new one for a time. 3. It is easy to keep queens in nuclei.—A. J. Cook.

I am not sure whether it is best to leave the whole matter to the bees themselves, or to replace, each two years, the old queen at or a little before the close of the honey harvest.—C. C. Miller.

1. As old as the bees will tolerate before *they* supersede them. 2. Let the bees do it in most instances. 3. At that time of the year when rearing or introducing, or both, succeed well in your locality.—James Heddon.

1. The bees will usually attend to the "superseding" without our interference. 2. Remove the old queen, and 4 days after insert a ripe queen-cell. Thirty-five days before the close of the honey harvest.—C. W. Dayton.

1. Three years. 2. It is best to let the bees do the superseding, unless one is an expert at queen-rearing. 3. During a flow of honey. Queens may be kept in nuclei until needed, and in nursery cages in full colonies for a few weeks.—G. L. Tinker.

1. There is really no rule that could fix this matter. Some queens are better at 3 years old than others are at one year old, and this fact makes any fixed rule out of the question. 2. I prefer to leave the bees to do their own superseding. 3. I keep spare queens in small nuclei, and make the nuclei pay expenses by building some nice worker combs.—G. W. Demaree.

I am doubtful about the advisability of superseding. Were I to practice it, I should supersede by killing the old queen after the honey harvest of the second year of her life, and introducing a young fertile queen. Possibly it might be advisable to introduce a queen-cell just ready to hatch, instead of a laying queen; it would save the risk of introducing. 3. Keep queens in nuclei.—W. Z. HUTCHINSON.

1. Three years is a safe rule, if you know you have the same queen. 2. My method is to find the old queen, put plenty of honey on the head, legs and wings of the queen I wish to introduce, and drop her in between the frames. Use honey from the same hive, and you will have success nearly every time. This is a quick way, and with me as sure as any. 3. Keep queens in nuclei.—H. D. CUTTING.

1. Never supersede them while they are able to, and do give good service in egg-laying. 2. Remove the old queen and introduce a new one by some of the many plans taught in the text-books and bee-papers. 3. Whenever the queen shows evidence of failing powers. Queens may be kept for some time in cages, in a colony or nucleus.—J. E. POND.

An unskilled apiarist should leave it to the bees to supersede queens. They will do it at the right time, and in a satisfactory way. Surplus queens may be kept in nuclei.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest: O~ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Location of an Apiary.

O. CLUTE.

While bees can be kept successfully in almost every locality, if there is pasturage, yet the site of the apiary has a good deal to do with the ease and rapidity of work in caring for the bees, and probably it has also some influence on the bees themselves.

As to the bees, it is important that the apiary be so situated as to be well protected from high winds. If it can be protected on all sides it is well. Certainly it should be protected on the north and west. In the spring or fall a fierce north wind or west wind blowing directly on the hives and through the apiary, is by no means helpful to the bees; neither is an east wind or a south wind. Undoubtedly a site where the apiary is protected on all sides from severe winds is most desirable.

The kind of protection is not of much importance. A high fence will do. A wind-break of trees is excellent, if thick enough. A hill sloping to the south or east will keep off the north and west winds. Perhaps a side sloping gently to the southeast, with a thick wind-break of evergreens planted on all sides of it, would be the ideal site. It would catch the warm sunshine of spring, and keep the hives warm for brood-rearing. It would catch the early morning sun, and so rouse the bees to an early start when the white clover or the linden is full of its pure nectar. It would give the best protection against the wild winds from the west or north, that in this latitude sometimes sweep down upon us with so fierce a touch. With a little taste on the part of the bee-keeper in planting a shade-tree here, a flowering shrub there, a bed of bright flowers yonder, a cozy seat beneath this tree, a Japanese ivy to fasten its clinging touch on the oak on the further side—we should soon see a "place of beauty which is a joy forever."

Nearness to the house is on several accounts important. The family of the bee-keeper soon comes to regard nearness to the house as no evil. Even the little children will walk fearlessly among the hives, and very seldom get stung. But in order to keep one's friends from being so nervous that they refrain from visiting you, it may be well to have a high fence so disposed as to shut off the sight of the hives from persons on the street or approaching the house.

Of course it is best not to keep bees so near the road that there is danger of horses or people being stung. But a few rods are sufficient to prevent all danger, especially if there is a high fence or a belt of trees intervening. A little caution on the part of the bee-keeper to prevent his bees from stinging people will usually keep all persons his friends, and prevent any thought of his bees being a nuisance that must be "taken out of town."

My own apiary is on the summit of a hill, very gently sloping to the east. Trees, buildings, and high fences protect from north and west winds. There is no protection from east and south winds. It is about eight rods from a street on which there is a great deal of passing, and about three rods from the kitchen door. It is not an ideal location, but it is pretty good.

Iowa City, O+ Iowa.

For the American Bee Journal

Comb Foundation in the Sections.

W. Z. HUTCHINSON.

The above is one of the subjects discussed in "The Production of Comb Honey." Since the book was published I have received the following letter. As it touches upon one or two points that I did not cover, but that have an important bearing upon this subject, it is with pleasure that I give it to the public, especially as the writer has given his consent to have it appear in the AMERICAN BEE JOURNAL:

STOW, N. Y., April 17, 1887.

Dear Sir:—I am engaged in the production of comb honey, specially for the Chautauqua local market. Chautauqua, as you know, has become a noted resort.

I have found the use of foundation in sections detrimental to sales, and have nearly discontinued its use, using only a small starter in a few last season, after my supply of natural comb for starters was exhausted.

Let me relate a case illustrating the effect of my course upon customers: The steward at the Kent House, Lakewood, told me last August that they had a distinguished guest who ate so much of my honey that he insisted upon buying it as an extra, so that he could have it every meal. "He eats no honey at home," said the steward "because he thinks it is nearly all either adulterated or wholly artificial, but he says he knows *yours* is pure."

That yellow septum clinches the "Wiley lie" with the average consumer, and it is impossible to undo the mischief.

A lady from Buffalo wanted a package to take home with her, as "she could get no pure honey in the city." "Why," said I, "do you think comb honey is adulterated?" "Oh, yes," said she, "they make it now by machinery so perfect that it is hard to tell the difference until you *come to eat it*."

In my opinion, if bee-keepers want to raise the price of honey, the most effectual plan will be to combine for the disuse of foundation in comb honey in sections, thereby largely increasing its consumption.

But I sat down to order your little book, and noticing that you make the non-use of foundation in the brood-nest a prominent feature in your system, I thought I would say that I have found its *non-use in the sections* essential to the increasing sale and consumption of honey.

Of course I should be pleased to have your views on the use of foundation in sections; and will close by asking questions which I think have not been answered in the Query Department of the AMERICAN BEE JOURNAL, viz: 1. What per cent. is gained by the use of foundation in producing comb honey? 2. What per cent. in sales is lost by its use?

Its existence in comb honey hinges upon the answer to these two questions.

LE ROY WHITFORD.

There is no question but what that Wiley lie has damaged bee-keepers to the extent of many thousands of dollars. Had it appeared only in the paper in which it was originally published, but little damage would have been done, but it was something sensational, and it went from ocean to ocean, and from gulf to bay, until there is scarcely a person who has not heard of it, and perhaps a majority of those who read it, believe it. This is not to be wondered at. This is an age of ingenuity and—adulterations, and everybody knows it; and when a man who knows nothing practically about bee-keeping, but has read the Wiley lie, discovers a firm, hard, tough, yellow substance in the centre of his comb honey, is it to be wondered at that he scrapes the *honey* off and lays aside the *foundation* with an, "Aha! you needn't talk to me, I *know* now that there is such a thing as artificial comb honey?"

Bee-keepers, there is no use of our "kicking;" the use of foundation does "give color to an unjust accusation," it furnishes the Wiley lie with a "foundation."

I know that Mr. Heddon says he used foundation three or four years before any of his customers noticed anything peculiar about the honey. True, but their suspicions were not aroused—they did not look for *artificial* about comb honey any more than we would now about a strawberry. The case is now far different; not only are suspicions aroused, but a great many people *believe* that comb honey can be ground out by machinery as easily as can mandrake pills, and all that is needed to change belief to certainty is the finding of a piece of corrugated, yellow leather (?) in the centre of a delicate morsel of honey. I am aware that comb foundation has been made very thin—so thin that, according to the experiments of Mr. Doolittle, it offered less resistance than the base of natural comb—but foundation so thin as this, is, I believe, seldom made, although I will admit that some foundation very nearly approaches it, perhaps near enough for practical purposes, but there is the *color*. Natural comb is white, while comb foundation is yellow. Right here it would be very unfair not to admit that there is a great difference in the color of foundation, some manufacturers seem to have the faculty of so purifying the wax that it is a very light straw color, and it shows but very little even in the whitest honey.

Of course the thinner and lighter colored the foundation the less objectionable its use, but I doubt if foundation could be made so that an experienced bee-keeper could not detect its presence in honey. I hope I am mistaken, but there is a toughness about foundation that stands out in such bold relief when compared with the brittleness of natural comb, that I fear I am in the right.

Perhaps some bee-keeper will say: "Mr. H. if you believe as you say you do, why do *you* use foundation?" Because I am compelled to, or be left behind in the race. No, let me modify this. It is because I think I would be left behind. Perhaps I can best explain by quoting part of a paragraph from "The Production of Comb Honey:

"When bees are gathering honey slowly, the *natural* wax secretion probably furnishes sufficient material, and there is probably abundant time for the building of comb in which to store the honey. As the flow of honey increases, the wax secretion is increased by an increased consumption of honey. Whether it is profitable to allow this increased consumption of honey, depends upon the price of wax compared with that of honey, and the amount that is required of the latter for the production of the former. But, as the flow of honey increases, a point is finally reached where the bees cannot secrete wax and build comb with sufficient rapidity to enable them to store all the honey they *might* gather. When this point is reached, and possibly a long time before, it is profitable to use full sheets of foundation in the sections. But the flow of honey can be, and sometimes is, so increased that the bees cannot keep pace with the bountiful harvest, even with foundation in the sections,and these *drawn combs* would be an advantage. (It is *possible* that it would be more profitable to keep so many bees in one apiary that this latter point would never be reached.)"

Following the above come directions for securing natural combs for filling sections.

In reply to Mr. Whitford's first question, I would say that it depends upon whether the flow is light and lengthy, or heavy and short. When the harvest comes, as it often does here in the North, in the shape of a short, sharp "honey-shower," it is impossible to secure it unless foundation or drawn combs are used in the sections, and I am decidedly of the opinion that the securing of natural combs for use in the sections during a honey-shower is a most profitable one for investigation and experiment. At present I shall use in the sections, for my main crop, the thinnest and lightest-colored foundation I can find, but, in the meantime, I shall make some experiments in the line suggested by Mr. Whitford's first question.

To give a definite answer to his second query would, of course, be impossible. When foundation was introduced, many were the arguments brought against its use in the sections, but bee-keepers found that they could secure more honey by so using it, and the arguments had to stand one side, and it will be ever thus, unless we find some way of securing natural comb with no more expense and trouble than attends the use of foundation. Let us try.

The making of first-class foundation is an art and a science, and must be learned the same as any trade or profession. Many bee-keepers, as soon as they have 30 or 40 colonies of bees, and often before, think they must have a foundation machine, in the same sense that they need a honey-extractor, and the result is a vast amount of bunglingly made foundation. Bee-keeping, and the manufacture of comb foundation are two entirely distinct trades. Not one bee-keeper in one hundred—yes, I think it would be safe to say not one in one thousand—knows how to purify wax and make first-class foundation.

Rogersville, ó Mich.

For the American Bee Journal.

My Experience with Laying Workers.

RANDOLPH GRADEN.

As I have had a very obstinate case of these little pests, I thought I would describe the course I pursued, and in which I was finally successful.

In the latter part of July, 1886, I had a small third swarm issue, and, wanting increase, I hived them in a hive of the Doolittle style. In a few days I examined the hive to see if the queen was laying, when I found neither queen nor eggs. I closed the hive, as it was about noon, thinking the queen might be out, and not as yet fertilized. But about three days later I again looked for the queen, which I could not find; but upon looking over the combs carefully I found eggs in an irregular manner, and from one to nearly a dozen eggs in a cell; also some queen-cells started, which I cut out, and in one of the places I put a queen-cell that was about ready to hatch; but the bees destroyed it the first night.

I then introduced a queen, first taking all the frames and shaking the bees on the grass about 30 feet from the hive; in 24 hours I opened the hive and found the bees trying to "ball" the queen in the cage. So I cut out all the queen-cells and closed the hive, first adjusting the cage in such a manner so as to release the queen with very little disturbance to the bees. I left it 24 hours longer, when I found that the bees had made a hole under one side of the cage and killed the queen. As I was determined to know if a queen could be introduced, I procured another untested queen, and as there was now only about one pound of bees left, I also procured a half pound of bees.

I now opened the hive and took out two of the outside frames, after shaking off all the bees; these two combs being partly filled with honey, and none of the abnormal brood. I then closed the hive, and taking the two combs into my shop, I secured the queen into the cage on one of the combs, and then took a new hive, and placed the frame of combs containing the queen in the centre of the hive, and put frames of foundation on each side. I now took the hive having the laying workers from the stand, first closing the entrance, and put the hive containing the queen upon the stand where the other hive stood, and shook the half pound of bees into it; and as soon as the bees became quiet, I closed the hive-entrance and all.

I then carried the hive containing the laying workers about 10 rods away from where it stood, opened it, and shook all the bees on the grass, and let them "shift" for themselves. In about half an hour I found the bees spread all over the front of the hive containing the queen. I then opened the entrance, and as soon as most of the bees were in, I blew in smoke at the entrance until the bees began to roar, when I left them, and in 24 hours I carefully released the queen. In about six days I found the queen laying and filling the combs with eggs.

On account of the lateness of the season I had to feed about 10 pounds of sugar syrup. I then wintered them in the cellar, and on May 20 I took out the division-boards. They are filling the hive rapidly, and are quite strong.

My bees are all quite strong except one colony. One of my colonies cast a large swarm on May 11, being 12 days earlier than in former years.

Taylor Centre, o~ Mich.

Iowa Homestead.

Relation of Bee-Keeping to Horticulture

EUGENE SECOR.

The true horticulturist, like the successful bee-keeper, is an enthusiast. I need not remind any one who plants trees and grows fruits, of the genuine pleasure that thrills the soul when nature responds to his intelligence, thought, and careful direction. He then lives in a world of his own. He needs no other intoxicant to complete his happiness.

The latent forces around us are ever ready to be set in motion, and only await the waving of the magic wand in man's skillful hand. Whoever touches the secret spring of this unseen power, and helps to develop wealth and beauty in place of poverty and ugliness, is adding to the general good, contributing to the happiness of mankind, and to those courses that will "ring in" the millenium.

Horticulture is one of the fine arts. It requires the skill of a master. It is just as impossible for the thoughtless, brainless clod-hopper to reach the highest round in the ladder in propagating fine fruit, as it is for him to appreciate it after it is grown. But after all man's skill in planting; after ransacking the earth for improved varieties; after propagating, grafting and hybridizing, he must rely mainly on nature's methods of fructification. The favoring winds and industrious bees are needed to fertilize the bloom, to insure a harvest of fruit. As a means of accomplishing this end, there is no question that the bee is of great service to the grower of fruits. No other insect is multiplied in such vast numbers so early in the spring, when their agency is so much needed to fertilize the orchards and small fruits.

If the winds were the only means of carrying the pollen from flower to flower, how often would perfect fertilization fail, from too much or too little wind during the brief opportune period when the bursting buds are sighing for the life-giving dust from the neighboring flowers. Nature does not stake all her chances on a single peradventure. If the wind fails to do its work, and the bees are not present to assist, there is still another chance, and that is, most plants are provided with both the male and female organs in the same flower, but such is her abhorrence to in-and-in breeding, that every pistil will receive the fertilizing pollen from a neighboring plant much more gratefully than that from the same flower. To the delightful task of fructifying the fruit blossoms and rendering cross-fertilization more certain, nature has assigned the insect creation, and in a large degree it falls to the lot of bees to accomplish it.

Not only is honey provided in the delicate chalices to entice them, but the pollen, so essential to the plant (and just as essential to the bee in furnishing the proper food for its young) is placed in close proximity to the nectar, so that in getting either the bee is unwittingly carrying the dust from flower to flower, working out the wise plans of Providence as relates to the plants, and catering to man's pleasurable tastes at the same time. The drop of honey is placed in the flower, not because it is needed there to perfect the flower or the fruit, but to tempt the bee to brush its hairy legs against the anthers, and distribute the golden dust.

In the Divine economy honey-bees were apparently created for the sole purpose of fertilizing the blossoms of those plants, flowers and trees that, without their aid, would be barren. The honey which the bees gathered was for their own use, making it possible for them to live through the winter and continue the species. Originally they were found only in hollow trees, in caves, in clefts of rocks, etc. Man learned that honey was good, and having observed that the bees would store up more than they needed for their own use, after a time domesticated them. From this fact has come the honey of commerce, and the further important fact that bees are now kept hundreds of miles from their native *habitat* of timber and rocks, and are thereby made to do service to the horticulturist, the gardener and the farmer, over wide areas devoid of timber as well as in some of the older States that are fast being denuded of their primeval forests. Hence to the bee-keeper credit is due for increasing the usefulness of the bee far beyond nature's limited provisions.

So the bee introduces itself at once to the horticulturist as his friend. The latter ought to meet it half way, and acknowledge its two-fold service. It does him a service while on its daily rounds in search of food for itself and young, and again by storing up for his benefit the liquid sweets which it does not need itself, and which, ungathered, vanish as the morning dew. Like the manna which the Israelites ate of, the ungathered portion melted "when the sun waxed hot."

What, then, is there to hinder these two vocations going hand in hand, since each is helpful to the other? They ought, at least, to be on friendly terms. Each furnishes inducements for the other to exist.

Another reason why horticulture and bee-keeping may profitably go together: The horticulturist is a student not only of nature, but of methods; such must the bee-keeper be to succeed. The very habits of thought, study and observation which are necessary to success in the one, will prove of great advantage, nay, more, are indispensable in the other. It may be said in opposition to this theory of uniting these two branches of rural economy, that the world is drifting more and more into specialities—that life is too short, and competition too severe for a man to master more than one thing.

While this is true to some extent, and while I believe that every man ought to master some one thing so that he is authority on that subject, this need not preclude him from investigating other subjects, and at times pursuing other lines of thought. Indeed, I believe it to be the duty of every person to get out of the ruts of one-ideaism, and to invite that wider culture which a familiarity with a variety of topics brings. Our capacities for enjoyment are not confined to one sense. Our pleasures are heightened by an extended range of thought and observation. The successful farmer may be a lover of blooded cattle or horses, or both, without detracting from his ability to raise good crops.

But aside from these considerations of healthful diversions and pleasing variety for the mind, and returning again to the utilitarian side of the question, the horticulturist will find it profitable to pursue the study and practice of this delightful branch of entomology. The habits and instincts of this "pattern of industry" are ever interesting, and the business quite as remunerative as raising tender fruits in an "iron-clad climate."

This pursuit once entered upon, possesses charms of its own. No other stimulus is needed to follow it than the fascination of its own creation.

A great deal has been said about bees injuring fruit. Some fruit-growers have charged that they puncture the ripe grapes, suck the juice and damage the crop. But from the physical structure of the bee, this is said to be impossible by scientific entomologists. It has no jaws like the hornet. It is made to suck, not to bite; and on close observation, and after repeated experiments, it has been found that where bees are discovered helping themselves to ripe fruit, that the skins had been ruptured by the weather, or from over-ripeness, or that hornets, or wasps, or birds had first been the depredators. After the skin has been broken from any cause, if there is a scarcity of honey, the bees, always anxious to be doing something, will endeavor to get a share of the plunder. Therefore, as to bees injuring fruit, I, as their attorney, shall claim to the jury that the charge is not proven.

In dismissing this interesting subject, which, to the lover of fruits, flowers and bees, is always a source of infinite delight, I cannot refrain from quoting a few lines from "The Planting of the Apple-Tree," by that venerable sylvan poet, our own Bryant, who saw so much of future hope and promise as he sifted the soft mold about its tiny rootlets:

> What plant we in this apple-tree?
> Sweets for a hundred flowery springs,
> To load the May-wind's restless wings,
> When from the orchard row he pours
> Its fragrance through our open doors—
> A world of blossoms for the bee.

Forest City, ♁ Iowa.

For the American Bee Journal.

The Solar Wax-Extractor.

G. W. DEMAREE.

My plan of making it is as follows: Make a plain box 19½ inches wide, 14 inches deep, and 35½ inches long, inside measurement. Nail on a bottom and have it bee-tight. Now nail on some legs at the ends, and the box is ready for the wax-pan, etc. To make the wax or draining pan, cut a piece of sheet-iron (I prefer sheet-iron to anything else) 24 inches wide and 28 inches long. To get the concave shape of the pan, get out a board from half-inch stuff, 5 inches wide, and 19½ inches long, and cut one of its edges to a true circle. Now bend the sheet of metal around the circular board and nail it closely. This gives a concave pan 19½ inches wide by 28 inches long, with one end closed and the other end opened.

To adjust the pan in the box or frame-work, get out a board 7 or 8 inches wide, 19½ inches long, and hollow out one of its edges to correspond with the circular shape of the pan, and nail it crosswise in the box, so that when the open end of the pan rests on it, the pan will project about 2 inches over the board, and be about 6 inches above the bottom of the box.

This will give room for the wax moulds under the dip end of the wax-pan. Two beveled strips of wood 28 inches long, nailed one on either side of the box, supports the sides of the metal pan.

When all is ready the wax-pan is shoved down into the box or frame-work until its open end rests in the hollow board, and the sides of the pan on the beveled strips. It is secured in position by nailing through the wooden bead of the pan and into the end piece of the box, and the sides of the pan are nailed closely to the beveled strips at the sides of the box or frame-work.

The sash is made like a shallow box 2 inches deep, rabbeted at the top to receive three panes of glass 12x20 inches, and slides back and forward between strips of wood at the sides of the frame-work. Some pressed pans 3 or 4 inches deep, and 7 inches wide at the top make good wax-moulds. When one is filled it is shoved aside and another put in its place. The filled pans are left in the box to cool gradually during the night. My wax-extractor is left in the apiary the year around. It has a board cover for it when not in use.

Christiansburg, Ky.

[By particular request of Mr. R. Dart, of Ripon, Wis., we reproduce the above article for the benefit of our new readers who may want to render wax in the manner suggested.—Ed.]

For the American Bee Journal.

Progressive Bee-Keepers' Convention.

The Progressive Bee-Keepers' Association held its semi-annual meeting in Bedford, O., on Thursday, May 5, 1887, with President D. M. Allen in the chair. After the usual order of business was disposed of, a committee to report on text-books in apiculture was appointed, consisting of J. B. Hains, J. R. Reed and J. L. Way, who, in their report, named many of the standard books on the subject as recognized authority among experts, and could not fail to be of advantage to all who faithfully peruse them.

F. C. White, E. Hanchett, and B. T. Bleasdale were appointed a committee to report on the bee-keepers' supplies exhibited. They reported the following on exhibition: W. T. Falconer, the Chautauqua hive; J. B. Hains, a device for winter passages, and to allow feeding while bees are still packed; M. E. Mason, shipping case for keeping sections neat and clean; Berlin Fruit-Box Co., section-cases possessing some peculiar points of excellence; A. J. Spafford, woven straw-mat for absorbing the moisture, thereby keeping the hive in good condition; nice samples of foundation by W. T. Falconer, J. B. Hains and M. E. Mason.

Reports of the apiaries received were as follows: Number of colonies on Dec. 1, 1886, 1,324; on May 1, 1887, 1,205; being a loss of about 9 per cent., which is the least average loss ever reported in this association. Quite a number reported no loss at all.

Discussions of the following subjects then ensued:

IMPROVING THE HONEY MARKET.

J. B. Hains—Sell none but the best; have a moderate price, and stick to it.

W. Z. Hutchinson—Sell more honey near home; advertise it; push it.

B. T. Bleasdale—Have only gilt-edged, good honey, and nice packages. Bad looking sections will cause nice honey to bring a low price.

F. C. White—Educate grocerymen to handle honey so that they will not mar it. A great many now object to handling it, claiming that it is "dauby stuff."

James Heddon—Do all you can to increase demand, and be careful not to induce recruits into the business faster than the market will warrant. Produce more comb honey and less extracted.

J. R. Reed—Get people to consider honey as a staple article of food, and not a luxury. We ought to agree on a price, and all rise or fall from that price at the same time.

Wm. Deisman—Cultivate home trade. Talk it up as good for food and medicine, and the cheapest kind of sauce for the table, that can be bought.

M. E. Mason—By improving the quality and appearance.

REVERSIBLE HIVES, FRAMES & CASES.

W. S. Wait—They are more easily handled, and the bees fill the sections better. Bees winter well with them; most of my colonies came out strong.

Mr. White—I think that they need closer attention than most hives.

Mr. Hutchinson—They have been a success with me.

Mr. Heddon—After the first inversion of the brood-combs, which secures the complete filling of the frames, I do not care to invert them again. As the combs in a section-case are rarely all at the right stage of development at one time, it is better to invert them in wide frames, as the four sections in any one wide frame are almost universally developed alike.

PROMOTING INCREASE OF COLONIES.

Mr. Hains—Begin in June, or, when strong enough, divide them; put them on combs of foundation, provide them with a queen, and stimulate them by feeding.

Mr. Hutchinson—By dividing; furnishing queens, empty combs, etc.

Mr. Heddon—By giving each colony double the ordinary breeding capacity; having brood-cases very shallow; interchange them so as to stimulate the queen to the greatest activity in brood-rearing.

PREVENTING INCREASE OF COLONIES.

Mr. Heddon—Give the bees plenty of room to store surplus honey; shade the hives, and by using the dark races of bees.

Mr. Hutchinson—Give plenty of surplus room, shade and ventilation.

Mr. Hains—The same as the last answer, and see that they have not made preparation for swarming before putting on the sections.

M. E. Mason—For the past five years I have managed my bees by a system, which has become quite generally known as the "Mason Non-Increase System;" and, so far as I know, it is entirely original with me, and I believe it is the only practical system of controlling increase. I will assume that you possess the necessary knowledge of spring management up to swarming time, and will begin my system from that time, as follows:

We will suppose that our colonies swarm by number, beginning with No. 1 as first, No. 2 as second, etc., through the apiary. But previous to swarming, it is supposed that each colony has been provided with one tier of sections (I use the tiering-up hive, 24 sections in each tier), at least, and that they are well toward completion when swarming takes place. However, should swarming not occur at this time, and the sections become so filled that the bees require more room, lift the case and place an empty one under it. Never wait for them to swarm, and never give more surplus room than they can occupy.

We will now suppose that from No. 1 issues the first swarm of the season; we proceed to hive it in the usual way on a new stand which has been provided with a hive having 6 to 8 frames of foundation, according to the size of the swarm. A queen-excluding honey-board should be placed over the frames, and one tier of sections put on at once, which should be increased as the season and circumstances suggest.

On the following day, from No. 2 issues a swarm, which is secured in a hiving-box. We now go to No. 1, which swarmed the day before, and remove the sections, and take from the centre of the brood-nest, two frames of hatching brood with adhering bees, and one queen-cell, of which form a nucleus. Now go over the remaining frames, and carefully remove all the queen-cells that may be in course of construction. Be sure that none remain, for the leaving of one will be ruinous to this system, and the only failures so far reported have come from a lack of thoroughness in this particular. Shake the bees from the comb, and get every queen-cell. Now in place of the two frames removed, supply two frames of foundation. Comb will not do, as they are at once filled with honey, and the queen is deprived of her natural place of depositing eggs.

A case of sections provided with full sheets of foundation is now to be placed on the hive next to the brood-nest, and those removed placed on top of the empty ones. Now close the hive, carry No. 2 swarm, which is in a hiving-box, and shake it in front of No. 1, which has just been prepared for them. Then, as soon as they have entered, it will be perceived that a colony of bees there exists in the best possible condition for storing surplus in the sections. They have had the advantage of the natural swarming impulse, and if they are carefully watched, and more sections given as they are required, and no faster, swarming for the season, so far as this colony is concerned, will be no more.

No. 3 we will suppose now casts a swarm. Go to No. 2 and arrange the same as No. 1 was previous to hiving No. 2 swarm into it, taking the two frames of brood, minus the queen-cells, and giving them to the nucleus previously formed from No. 1; by this process the nucleus is built up to a full colony as swarming progresses, when sections should be given them. After No. 2 has been prepared the same as No. 1, hive No. 3 into it.

The above will suffice to illustrate the system which should be followed through the apiary as swarming proceeds, until all have been so treated, and the result will be, if the system as here given is fully complied with, a minimum increase of honey for the market.

FOUNDATION IN BROOD-FRAMES.

Mr. Deisman—I do not want starters in brood-frames.

Mr. Bleasdale—I never have tried starters, but I am going to experiment.

J. D. Haggart—Foundation pays well used in full sheets.

Mr. Hutchinson—It depends upon circumstances, which I have considered in my little book, "The Production of Comb Honey."

Mr. Heddon—At the present price of foundation, I am of the opinion that it usually pays best to use full sheets; but there are no doubt times and conditions when it is most profitable to use only starters, if the apiarist knows how, and takes the time to make the surrounding conditions what they should be.

Mr. Hains—Fill the frames; it pays best.

MARKETING HONEY.

Mr. Hutchinson—Put up extracted honey in small packages, either tin or glass; comb honey in pound sections, in small crates. Sell to the consumer if possible.

E. Hanchett—Sell to your friends and neighbors, and put it in packages to suit them.

Mr. Heddon—Manipulate the best of sections in such a way as to have them come from the hive unsullied; clean them of all glue, and crate them in one-story shipping-crates not holding more than 12 pounds each. The selling depends upon the locality.

Mr. Mason—Its preparation must begin with its production. It must be stored in white, smooth one-pound sections, which must be kept neat and clean. The different kinds of honey must be kept separate. Separators must be used to insure uniformity of weights, and an even surface, giving the honey a better appearance, and a proportionate better price. Never allow a section to go to market that is not perfectly filled, and every cell capped over; and of all things, do not market two colors of honey in one section.

Miss Dema Bennett, *Sec.*

For the American Bee Journal.

Appropriate Apicultural Names.

J. F. LATHAM.

The items and remarks on page 291, relative to a term by which honey in its liquid and granulated conditions may be properly designated, seem to call for more than a passing notice. Strained honey has been, and very properly, banished from apicultural parlance. But will the word "liquid," when applied to honey in all of its conditions out of the comb, embody its true appellation? Anything which will flow may be termed "liquid." Would not the phrase "liquid water" be as applicable when used to denote that element? Congealed water is ice. Granulated honey is sugar. Why not call honey in its liquid and granulated conditions "free honey?" The word "free," when used adjunctive with honey, as an explicative, would not admit of a qualifying sense as to change, or *quality*. The term "free honey" would mean *honey*, and no twisting or prostitution of language could mar its definition. When not granulated, honey can be consistently called "liquid;" and when crystallized, it may as consistently be called "granulated."

Taking another step in advance, the term "comb honey" does not seem to truly describe honey in the comb, but rather bears the aspect of a misnomer—of a signification conveying a sense opposite to that usually intended when applied to represent honey as it is stored by the bees. There is no such a substance as *comb* honey. Honey, when confined in the comb, as stored and sealed by the bees, is no more or less than the pure sweet that its name designates—nectar gathered from nature's flora.

"Honey-dew" is another misnomer which deserves banishment from the bee-keepers' vocabulary. To the initiated the use of such terms as are alluded to in the foregoing, may be harmless, as the well-posted honey-producer knows, or is supposed to know, what he is talking about when discussing such subjects; but to the novice, their use by those who are "looked to," has a misleading tendency.

Still another step along the same line is another term that is applied to a worker-bee that lays eggs. It cannot be truthfully denied, but that a worker-bee which deposits her eggs in the cells of the comb is a *laying* worker-bee; but do the terms "laying worker" possess sufficient scope from which a true comprehension of her functions can be deduced? A worker-bee can lay eggs, but they are agamic in origin, and if I may be allowed to add, functions. The same may be said of an unfecundated queen-bee, or old and defective queens. Leaving queens out of the list, it seems that the term "agamic worker" would be more efficient when applied to a worker-bee stimulated to the habit, or impetus of egg-laying in compliance with the promptings of a sympathetic desire to propagate its kind, than that of "laying worker."

Pushing a little further, I can coin no reasons as to why the single term —agami and its plural—will not comprise everything having reference to the functions of the *laying* worker-bee.

Cumberland, ♀ Me.

For the American Bee Journal.

Damp Cellar for Bees, etc.

WM. MALONE.

Bees have wintered well in this part of Iowa, as far as heard from. I wintered 41 colonies in a very damp cellar or cave, at a temperature of from 40° to 48°, and the bees were the most quiet at 40°, with ventilators closed.

The bees came out in very excellent condition on March 9 and 10, without the loss of a colony, and as strong in all appearance as when put in, on Nov. 25, 1886. I could hardly see that they had consumed any honey. They commenced gathering honey and pollen from soft maple the next day after being put out, and continued three days, when a cold spell came, and they dwindled considerably, so that I lost 3 weak colonies; but at present my bees are in splendid condition. I have young queens laying, and have taken 125 pounds of fruit-blossom honey, and they have 300 or 400 pounds sealed over ready to take; but the bees have stopped working, and so I will have to stop taking honey from them for the present.

PROFITABLE PRODUCTION OF HONEY.

I am satisfied that honey will have to compete with other sweets before we can sell any great quantity in our home markets for "spot cash." If we cannot realize the cash for our honey, we had better devote our attention to something that will command it. In my locality I can make more money producing extracted honey (that my neighbors say is good) at even a less price than we now get for it, than I can at any other business that is open to me. Can I get the cash for all I can produce at a lower price at my apiary? I believe I can. But shall I not interfere with some other honey-producer in doing so? This is an important question, and I would like to have your opinion on it, Mr. Editor, as well as others.

Newburn, ♀ Iowa.

[This is a legitimate question which should be fully discussed at the forthcoming convention this fall, at Chicago. We prefer to leave it to the decision of the giant minds which will be there to give it a thorough investigation. Much can be said on both sides—for "there are two sides to every question," and this is no exception to the rule. We shall store up our "powder" till then.—Ed.]

Pacific Rural Press.

Hints to Beginners—Spring Work.

WM. MUTH-RASMUSSEN.

If you are a beginner in bee-culture you should, during the winter, have read up on the subject, and made up your mind what hive you want to adopt, and where you are going to place your new hives, when you get bees in them; for now is the time to get the hives ready, whether you intend them for transferred colonies or for swarms.

Make or send for everything you will need during the season. When swarming time comes, it is too late to commence making hives. The swarm may leave, before you get a hive ready for it. Fill the brood-frames with comb foundation. This will secure beautiful, straight worker-combs, and prevent the bees from rearing and feeding a horde of drones.

If you intend to produce comb honey, put your sections together, fill them with thin foundation, and store them away in the packing-boxes, that they may keep clean, and that you may have them ready when needed. Overhaul wide frames or section-cases, scrape off all propolis or bits of wax, if you did not do it when you took them off last fall. See that your honey-tank is clean and does not leak; that your extractor and smoker are in working order; that your honey-knives are sharp. Make queen-cages of wire-cloth. Look after swarming-implements. Make or procure cans in time. If you wait until the last moment, you may find that supply dealers are so crowded with orders that you cannot get what you want until it is too late, and you may lose your crop. You will then only have yourself to blame.

Clean up in the apiary. Remove all weeds and burn them up. Trim the trees, if they need it. Plant shade-trees, if they are not already there, gather together all loose boards and sticks that may be scattered around.

Mark the exact place for new stands, as you would lay out the ground for a vineyard or orchard. Level off the ground, where each new hive is going to stand. Clean up all empty hives or such in which the bees have died, and close the entrance to prevent spiders, moths and ants from getting in. When you put the swarms into these hives, do not forget to open the entrance again. Give all the old hives a coat of paint if they need it. Number the hives, if they are not already numbered. Procure an "apiary register," or, if you have one, look it over and make yourself familiar with the condition of each colony, when you last examined them. Make a note of those colonies which have old queens, that will need replacing.

As soon as the weather is warm enough, examine each hive. See that it has a queen, and that it has honey enough. Clean out the trash that has accumulated on the bottom-board during the winter. If left, it will make a nest and hiding-place for moth-worms. If the cloth over the frames is worn out, replace it with a new one. If the bees are weak in numbers or queenless, give them sealed brood from the other hives, till you can give them a a new, young queen. If they are short of honey, give them full combs, which you should have kept over for that purpose, or give them combs of honey from the colonies that can spare it, replacing them with frames of foundation, or better, with empty worker-combs. If they have too much honey, which crowds the queen for breeding-room, take it away from them and extract it, or store it in the house, or give it to colonies that need it.

Lay your plans now for the whole season. Have a place for everything, and keep everything in its place. Order takes time, but also saves time, when time is precious. Even if you do what you can now, you will have your hands full when the swarming and honey season comes. If you delay, the day will never be long enough.

Independence, Calif.

For the American Bee Journal.

Extracting Honey—Senses of Bees.

AARON BENEDICT.

As the season for surplus honey is at hand, I would say to beginners, go slow with the extractor. Too many extract as fast as the bees gather the honey; after awhile the honey-flow ceases all at once, leaving the bees without honey enough to winter on. The next spring the inexperienced bee-keeper says that bee-culture is a failure, and quits the business. I will now state how to manage and be safe:

Put on sections for comb honey (the most of the comb honey will be stored before the bees swarm); when they swarm hive them in a new hive with foundation. Place them on the old stand, and put the old hive on top of the new colony, with a division-board between the bees. A frame nearly the size of the hive with wire-screens tacked on it, is what is wanted when the bees get fairly to work in the lower hive. In 3 or 4 days remove the division-board, and let the bees go together again. The queen will, as a rule, remain in the under hive, and the bees will store the honey in the upper hive. Let them remain until the honey season is over, and then examine the bees; if there is not enough honey in the lower hive for winter, take sealed honey from the upper one and give to them; the balance extract. This will be good, ripe honey, and if candied, it will remain so.

HEARING, SEEING AND SMELLING.

The sense of hearing in the honey-bee is very acute, as well as seeing and smelling. I have frequently heard young queens answer to the piping of a hatched queen before they come out of the cell. Of course they can hear.

BEES DO NOT FREEZE.

Bees do not freeze and thaw out like snakes and woodchucks. Snakes will freeze and thaw and live; but a frozen bee never lives again. They are like the raccoon—they go into winter quarters, live on their fat; the bees live on their honey.

HONEY PRODUCTION.

By request I prepared the following to be read at the Morrow County, Ohio, Farmers' Institute, and now send it for publication in the AMERICAN BEE JOURNAL, for the information of beginners:

How to produce the most comb honey per colony is done by using sections filled or partly filled with comb foundation. To get the bees to work readily in these sections the bees are pressed up in the sections by means of a division-board; as soon as the bees get fairly to work in the sections the board is removed and the bees given the range of the hive below. As fast as these sections are filled they are removed and empty ones put in their places. This process is followed throughout the honey-gathering season.

How to produce the most extracted honey is done by using two hives, one upon the other; the extra hive should be filled with combs or comb foundation; the bees will store the honey in the upper hive; the extracting is all done from this hive; some extract as fast as the bees gather the honey, others not until the honey season is over, adding a third hive if necessary. After the honey season is over, the bees are all placed in one hive again and sufficient solid honey given them to winter; the balance is extracted; the empty combs are carefully preserved in a cool, airy place for the next season's use; this latter method I prefer to the former.

DIVIDING FOR INCREASE.

Multiplication of colonies by division is done by first blowing a little smoke in at the entrance of the hive to quiet the bees. The cover or cap is removed, the honey-board and surplus arrangements are taken off; the cover placed back, a little more smoke is added if required, and the bees soon fill themselves with honey. Now by gently rapping or jarring the hive the bees will go up into the cover; they are then shaken out on a cloth to find the queen; as soon as she is found, the bees and queen are put in a new hive and placed on the stand where the old one stood; the old hive is placed on a new stand; a young fertile queen is now given to the old colony, and the work is done.

To illustrate: If this old colony had swarmed on the day they were divided (naturally), it would have been 18 to 20 days before an egg would be laid by the young queen in the old hive; by giving the old colony a fertile queen, there would be no creation of eggs; at the end of 18 or 20 days there would be just as many eggs and brood as there was when divided; dividing in this respect is ahead of natural swarming.

To improve our bees we breed our queens from the queen or mother-bee whose worker bees produce the most honey. We also breed from queens whose workers are docile and easily handled; by thus breeding we have improved our bees much. We have now imported to this country all races of bees: Italians, Cyprians, Cyrenes, Egyptians, Holy-Lands, etc. Those bees are in the hands of experienced bee-keepers, being tested as to their honey-gathering qualities. I know of no other industry that has improved as much in the past 25 years as has apiculture. The wool-grower of 25 years ago has gained from 2¼ to 6½ pounds per fleece; while the honey product has increased from 8 to 60 pounds per colony.

Bennington,⊙ Ohio.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. ——North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM
OUR LETTER BOX

No Roaring—Liquid Honey.—Jos. A. Hawn, Farmington,○→ Mo., on May 21, 1887, says:

I have never been able to detect any "roaring" in my bee-yard in cold weather, that could be heard *one* foot away. Part of my bees were in single-walled hives. I would suggest to Mr. Demaree that his term "liquid honey" would apply equally well to honey in the comb, that is not candied.

Very Dry Weather.—Jos. Mason, Wallace,♂ Ills., May 21, 1887, says:

The weather is very dry in this vicinity, and unless we get rain soon the bees will suffer. The pastures are drying up fast. The mercury, the the last few days, was as high as 92° in the shade.

Good Honey Season Expected.—P. L. Gibson, Muscatine,○→Iowa, on May 16, 1887, writes:

I wintered my bees in a cave. I put in 40 colonies on Dec. 8, and took them out on March 8, all in good condition. Drones have been flying for several days, and swarms are expected soon. White clover began to bloom one week ago, and with the heavy rains of last week, it bids fair for a good honey season. One of my neighbors has bees in the second story of an old house; there are bees flying to and fro through the windows, and are doing nicely. Another neighbor has a half-gallon glass-jar filled with nice comb honey, put there by the bees last year. No bee-legislation or taxation for me, please, but let them go free with the pigs and poultry, and if they root up, scratch up, or sip up your neighbor's vegetables, pay all damages cheerfully.

Bees do Roar in Winter.—W. C. Steddom, Oregonia,♀ O., on May 20, 1887, says:

Bees in this locality, when the mercury falls too near zero, can be heard distinctly several feet distant. Until the late controversy, I supposed every bee-keeper to be familiar with the fact. I was surprised when Mr. Demaree said his say about the bees being quiet when the mercury suddenly falls too near or below zero.

Terrible Drouth.—10—B. H. Standish, (200), Evansville,♀ Wis., on May 23, 1887, writes:

We have not had a good rain this spring, and but one or two light ones. This following the severe drouth of last season, makes the outlook very poor for bee-keepers. White clover is not to be found, except on low land and in protected places, and even this is now stunted and withering. It will scarcely keep breeding up unless we soon have rain and favorable weather.

[The refreshing showers which have been so general all over the Northwest, we hope have found Evansville before now, and made amends for past neglect.—Ed.]

Bees Roar in Winter Confinement.—J. W. Bayard, Athens,♀ O., says:

Do bees "roar" in winter confinement? This is hardly a mooted question among intelligent bee-keepers at the North. Of course as one goes South the cause entirely disappears. In this latitude—a trifle north of Cincinnati—when the temperature reaches zero, it becomes a disturbing cause, and the roaring process begins, and the lower the temperature the louder the "roar." This is a provision in nature, I presume, that is eternal. I winter my bees without protection on the summer stands.

Loud Roaring of Bees.—G. A. Brunson, Plymouth,○→ Mich., on May 19, 1887, writes:

In regard to roaring, I would say that one morning during the coldest spell of the winter of 1884-85, I heard loud roaring of the bees in my chaff and sawdust packed hives, which proved to be too light or thin-walled for the occasion. They had 3-inch walls, and it was 34° below zero. I afterwards found plenty of ice and frost inside the hives, and together with the large quantity of foul stores or honey-dew they had gathered the fall before, caused the death of 23 out of my 25 colonies. My theory of the roaring is this: As the interior of the hive was chilly, a greater consumption of food was necessary, and in order to get at the food a greater heat was necessary to allow the bees to leave the cluster to gather the fuel required to maintain life and heat; hence their roaring.

No Sound in Winter Detected.—A. B. Gregory, Lansing,♀ Mich., says:

I have wintered from 10 to 30 colonies of bees out-doors for the past 8 years, and I have never been able to detect any sound from them when standing by the hive in cold weather. In fact, no sound was audible with the ear close to the hive when the temperature was below zero.

But Little Humming in Winter.—Randolph Graden, Taylor Centre,○→ Mich., writes:

I would say in reply to Mr. Demaree's request, that I have walked among my hives on the summer stands in the winter almost daily, and I have always noticed if all was in good condition, that the bees made very little noise or hum when the temperature was at zero or below; but as it moderated, the hum increased to the natural hum that may be heard almost any time in the spring or autumn.

Roaring Bees in Winter.—Wm Irwin, Columbus Grove,○→ O., on May 19, 1887, says:

I wintered my bees on the summer stands in single-walled hives, and I could hear them sounding from 9 to 13 feet away, with a temperature ranging from zero to 15° below.

Bees Roaring in Winter.—H. N. Patterson, Humboldt,○→Nebr., writes:

I winter my bees on the summer stands, protected. At a temperature of zero and below the bees can be heard roaring. I examine them once every week in the winter; when the temperature is above zero, I blow my breath in the entrance to see if there is life. When colder, I know from the hum at a distance, for the colder the louder it is.

Waiting for Honey to Gather.—M. O. Tuttle, Osage,♂ Iowa, on May 23, 1887, writes:

I reported in March that I had 80 colonies of bees in the cellar. I took them out on April 11, after a confinement of 155 days, I think. I lost none from the effects of wintering. Two starved from the effects of robbing last fall. Seven more have gone one way and another since being taken out. This has been the worst spring for robbing that I have ever experienced. I now have 71 colonies, and 50 of them are very strong. They are in surplus cases now, waiting for honey to gather. I have several hives tiered up—one hive on top of the other—with both hives full of bees from top to bottom. There were young bees when taken from the cellar. I have not yet seen a live drone in my yard. For a few days past I have seen the bees dragging a few drones from the hives; also drone brood. I suppose they do it on account of scant pasture. We had a little shower last Saturday, which I am in hopes will be followed by more. Our prospects for spring clover is slim. Many bees are in good condition in this county, many are dead, and some are weak, as usual. Wintering bees does not worry me any more.

Short Crop and Few Swarms.—A. J. Foss, De Luz,⊸ Calif., on May 19, 1887, says:

I believe thst it is pretty generally admitted that the honey crop of this county will be very short; although bees in this locality are very strong, they are gathering very little honey, and storing no surplus. We have had very few swarms, and the indications are that they will not swarm much.

Bees make No Noise.—J. P. Cedarholm, Galesburg,♀ Mo., on May 23, 1887, says:

I winter my bees in single-walled hives, on the summer stands unprotected, save a cloth cover and the caps of the hive. When the temperature approaches zero, or goes below, no sound issues from the hives, if the bees are in good health.

Very Weak Colonies.—R. Dart, Ripon,⊸ Wis., on May 24, 1887, says:

Our bees wintered well here, but we have lost heavily by spring dwindling; and many of our remaining colonies at this date are very weak.

Bee-Keeping in Washington Territory.—John Boerstler, Vashon Island,⟜Wash. Ter., on May 14, 1887, writes:

I am starting in with 3 colonies of bees, 2 being hybrids and 1 black colony. There are only 7 colonies on the whole island, and 2 of them have starved to death. My 3 colonies are doing well, and I can tell more about them by fall, as I am just beginning in a new country where there is not much pasturage for bees. Drones have been flying for 2 weeks. My bees are in box-hives, but I will transfer them to Langstroth hives soon.

Storing Honey Rapidly.—J. H. Higgins, Victoria,⊸ Tenn., on May 16, 1887, writes:

The past was a very hard winter on bees here. Some in logs are dying yet, but mine are storing honey very fast now. I lost 2 colonies that were late swarms, have 9 yet, and I am expecting swarms now. Some of my hives have 20 pounds, and some 30 pounds of honey in them. I think the bees will store a great deal of it this year. This country is behind in bee-culture, although it is a splendid place for bees. My bees brought in the first pollen on Jan. 18, from alder. I winter my bees out-doors. The ground never freezes here over 4 inches, nor remains so over 3 or 4 days. Bees can fly the most of the winter. This is a mountainous country filled with linden timber, and all manner of wild flowers. My bees worked until Nov. 14, last year.

Never Heard them Roar.—F. L. Smith, Chittenango,⊙ N. Y., says:

During my 12 years' experience with bees, handling from 100 to 150 colonies, spring count, I have never yet heard them roar in extreme cold weather. I have often visited them for the purpose of observation, and have learned that the colder the atmosphere the more death-like stillness prevails within the hive.

Early Swarming.—John A. McSpadin, Arenac,⊸ Mich., on May 25, 1887, says:

Last fall I bought one colony of bees and a chaff hive. On May 10 they swarmed, and again on May 22 and May 24, so I now have 4 colonies. My neighbors think they never saw bees swarm so early, although they have kept bees for years.

Roaring in Cold Weather—Edwin Baldwin, Mendon,⟜ Ills., on May 25, 1887, says:

I winter my bees protected on the summer stands; during the coldest weather they were "roaring," but I think it was caused by their becoming uneasy, on account of improper food or lack of ventilation.

Fine Rain and Prospects Good.—Reuben Havens, Onarga,⊸ Ills., on May 23, 1887, says:

White clover is beginning to bloom, and there is promise of an abundant crop. We had a fine rain last night, which will bring bloom forward rapidly. Bees are strong and in good condition. Fruit-bloom furnished sufficient honey to keep constant brood-rearing. Winter losses have been small.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages).............	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—

BEESWAX,—25c. R. A. BURNETT,
Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.
May. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¾@5 cts.; light amber, 4½c.; amber, 4¼c. Comb, white, 12@14c.; amber, 7@9c. Demand good.

BEESWAX.—23c.
May 8. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.

BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4½c. Market quiet.

BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—We quote: Finest white 1-lb. sections, 12@12½c.; choice white 1-lbs., 11@12c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; good white in kegs and barrels, 6@6½c.; dark, 4 to 4½c. Demand good and market firm.

BEESWAX.—25c.
May 4. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@8c. Sales large and demand good.

BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Very little extracted in the market.
May 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
May 21. C. F. MUTH & SON, Freeman & Central Av.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

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The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

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Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Marvelous!—Dr. R. B. Woodward, of Somerset, Ohio, on May 24, 1887, writes: "MESSRS. T. G. NEWMAN & SON.—The bill of goods I ordered is just received, in good condition, just 46 hours from the time the order was written! The distance from Somerset to Chicago is nearly 400 miles! Marvelous age!".

All goods ordered are shipped the very day the order is received, unless there is something to make specially, or some of the goods are not in stock. Then they go the first minute possible. *Punctuality* is the *rule* for all our business.

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Advertisements.

AUCTION SALE of BEES.

AT **Winnebago, Ills.,** 7 miles west of Rockford, on Saturday, June 4, 3 o'clock p.m., I will sell **100 Colonies** of Bees, with Section-Cases, extra Hives, etc., at Auction. A good chance to get Bees, at the opening of the honey season, at your own prices. Safe removal guaranteed.
22A1t C. M. HOLLINGSWORTH.

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ITALIAN Queens by return mail: Tested, $1; Untested, 75 cts. Two-frame Nuclei, $1.50; 3-frame, $2. BEES by lb., 75 cts.
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35 cts. 35 cts. 35 cts.

ORDERS filled now for Choice BROOD FOUNDATION at 35 cts., and LIGHT for comb honey, at 45 cts. All Foundation is made of the best yellow beeswax.

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20Atf MAYVILLE, Dodgo Co., WIS.

"Boss" One-Piece Sections,

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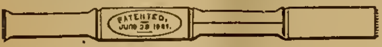
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Sample Hive, complete and painted, $2.50.

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1,000 to 5,000 Surplus Honey Crates, all painted and filled with 28 one-piece Sections, 7 to the foot. Will fit 8-frame Langstroth hive, or Heddon's Langstroth hive. The best CASE ever in use. Especially adapted for Tiering-Up. In lots of 5, 40 cents each. PRICE-LIST free.

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AND BEE-KEEPER'S ADVISER,

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In 25-Pound Boxes.

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Perfection Cold-Blast Smokers,

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P.S.—Send 10c. for Practical Hints to Bee-Keepers

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In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

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SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
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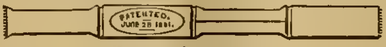
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Vandervort Foundation Mill.

6 Inch, Price, $20.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

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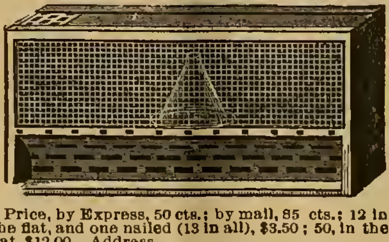

Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50 ; 50, in the flat, $12.00. Address,

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HOW TO RAISE COMB HONEY.

Price 5 cents. You need this pamphlet, and my free bee and supply circular. 7Atf.
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W. Z. HUTCHINSON,

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HAS received scores of unsolicited testimonials in regard to the excellency of his little book—

"THE PRODUCTION OF COMB HONEY;"

and it is with pleasure that he publishes the following selections :

Success to the little book of fresh and live ideas.—E. E. Hasty, Richards, O., March 28, 1887.

It is the best book on the production of comb honey I ever read.—F. W. Holmes, Coopersville, Mich., March 29, 1887.

I congratulate you on getting up such a complete treatise upon the subject in so small a book.—W. H. Shirley, Mill Grove, Mich., March 27, 1887.

Your little work on "The Production of Comb Honey" is a valuable acquisition, and coincides with my experience.—Dr. L. C. Whiting, East Saginaw, Mich., April 23, 1887.

It is simply at the head, in every respect, so far as it goes. All can say that there are larger books—those that cover more ground, but *none* that cover their ground nearly as well.—James Heddon, Dowagiac, Mich., April 2, 1887.

You have given us a valuable work. Though terse, it lacks nothing in completeness. We need more such books—those that give facts in the fewest words. For four years I have practiced essentially the system you give, and know its superior worth.—Dr. G. L. Tinker, New Philadelphia, Ohio, April 17, 1887.

Your book received last night and read through before I could sleep. To be sure I knew the most of it from your articles in the bee-papers, but it is nice to have it all together in a neat little book like yours. You just more than boiled it down, didn't you?—Dr. A. B. Mason, Auburndale, O., Mar. 29, '87.

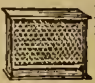
Friend H.: Have just received your little book. Much that it contains will be found new, I think, with the *majority*. The cost in production must in some way be lessened. You set out the primary elements by which such lessening of cost may be made. I say heartily that I think your little book should be studied carefully by every producer of comb honey. With kind regards—J. E. Pond, Foxboro, Mass., March 28, 1887.

Your lovely little book gave sister and me much pleasure, and the author will please accept many thanks. Since criticism is invited, permit me to say that we reach the conclusion to *soon*. Had the book been less interesting we might not have discovered the fault—might even have thought it a *merit*—and since the book is as good as it is pretty, its brevity is a serious fault ; a fault which will surely be amended in the second edition.

With the hope that it may everywhere receive the cordial welcome that it merits, I am yours truly—"Cyula Linawik."

☞ Price of the Book, **25 cents.** 21Atf

Patent Flat-Bottom Comb Foundation



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Strong, first-class in every respect, For Sale at reduced prices.
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FINE Tested Italian Queens, $1.00 each ; Untested, 75 cts. each or **five** for $3.00. **Seventy-five** cts. per lb. for **BEES.** Can ship promptly. Never had foul brood.
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THE HORSE,

By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms ; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison ; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse ; a valuable collection of recipes, and much valuable information.

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. June 8, 1887. No. 23.

"**Be Sure** the new hive is clean and neat.
Smear it with beeswax and with honey sweet.
Have no foul smell about it, for the bees
Are mostly all old maids, whom you must please
By making things quite tidy and 'so—so,'
Else in a fit of dudgeon, off they go!"
—*Wm. F. Clarke.*

◆

Japanese Buckwheat is highly recommended as a honey-plant. It was introduced in this country in 1884 by Peter Henderson, of New York.

◆

Mr. R. F. Holtermanu, of Brantford, Ont., married a daughter of Mr. S. T. Pettit, of Belmont, Ont., on May 17, 1887. The AMERICAN BEE JOURNAL wishes for its brother editor a long and happy wedded life, hoping that neither of the pair will ever regret the step thus taken.

◆

Those Who Think that "they know it all" are generally those who know the *least*, and usually pay the most for their lack of knowledge. In this ever-advancing age it is an imperative necessity to keep posted about everything having any bearing upon our pursuit in life. In no other business is it more necessary than in bee-keeping! Those who would succeed must *know* what is going on in the fields of production and commerce—must *profit* by the manifold experiences of those who have wrought in the same line—must study the subjects both of consumption and production—and learn all the facts about the local markets for honey, as well as those of the metropolitan centres.

This can only be done by reading the periodicals devoted to the pursuit of bee-keeping. No one in America can be *too poor* to subscribe for a bee-paper and yet own a colony of bees! But simply to have such a paper in your house will not avail. It must be read, studied, and be made of practical value. The knowledge of last year will not do for this year. Progress is written on every page of our daily existence, and to refuse to advance with the busy throng around us, is but to allow ourselves to be crushed under the wheels of progressive intelligence and advancing knowledge.

The Irascible Bees of India.—An exchange contains the following item concerning an attack of these insects upon a Royal party of church-goers. It says:

> Lord Dufferin and his suite had a narrow escape recently at Dehra Doon. It appears that a swarm of irate bees ran amuck among the escort and attendants, and routed them horse and foot. Horses bolted, vehicles were smashed, ladies and children shrieked, and one poor charger belonging to an officer of the Ghoorkas, was so badly stung that it lay down, and a "smudge" fire had to be lighted around it before the bees were driven off. The viceroy and suite had just passed into the church, in order to attend service, before the apian legions delivered the charge.

This reminds us of an incident recorded in Forsyth's charming work entitled "The Highlands of Central India." It is this:

> A friend once told me that as he was driving near a village some miles from Jubbulpore, he and his servant and horse were attacked by some irate bees without any real provocation. The enemy crowded round in such numbers that the situation became serious. After receiving several stings, and finding the horse becoming restive, my friend resolved to save his own life and that of his servant, which were really in jeopardy, at the risk of a little discomfort to other people. Accordingly, he whipped up his horse and made for the village, a cloud of bees keeping up with the trap without the least effort. When the village was reached, the bees, as my friend anticipated, found so many other objects of interest that they distributed their attentions with less marked partiality than hitherto. In other words, the cloud scattered among the villagers, who were so numerous that two or three stings apiece probably represented the total damage.

In the same book we find a painful instance of the terrible consequences of provoking these irate insects in one of the loveliest sights in India, the famous Marble Rocks of Jubbulpore. The writer says:

> These rocks form a gorge through which the great river Nerbadda flows, and the marble formation extends for about a mile. The dazzling walls which shut in the river are studded with pendant bees' nests, and for any one sailing in a boat down the narrow channel to disturb the bees is a fatal proceeding. If any warning were required, it is given by a tomb, which stands on the outskirts of the village just above the gorge, to the memory of one who was stung to death in this beautiful spot. Actuated by a foolish impulse, he fired his rifle at one of the nests, whereupon the bees came down on him in such numbers that he attempted to save himself by jumping overboard. The relentless insects, however, still pursued him, with fatal results.

These bees are surely somewhat related to the *Apis dorsata*—the giant bees of Java—whose fiery temper and irascible disposition make it very dangerous to disturb their domicile. Frank Benton's experience with these bees was not very pleasant, as may be seen in back volumes of the AMERICAN BEE JOURNAL.

◆

Late Catalogues for 1887, on our desk, are from—

J. W. Eckman, Richmond, Texas—4 pages—Bees, Queens, Chickens, etc.

S. W. Morrison, M. D., Oxford, Pa.—4 pages—Carniolan Queens.

C. F. Muth & Son, Cincinnati, O.—32 pages—Bee-Keepers' Supplies.

Edey & Son, St. Neots, Hunts, England—60 pages—Hives and Bee-Furniture, Poultry and Game Appliances.

J. C. Wilms, Waupun, Wis.—8 pages—Bees, Queens, Poultry and Eggs.

M. Lashley, Ambler, O.—1 page—Hive for Comb Honey.

Stolen Sweetness and Stings.—The Oakland, (Calif.) *Tribune* of May 3 contained the following item concerning a theft of bees:

> Since before the days of the impenitent thief, the man who would steal a hot stove has topped the pinnacle of larcenous fame. His fame bids fair to become a thing of the past, and all on account of the superior larceny of a woman of East Oakland. There came to the office of Prosecuting Attorney Earl this morning a sad faced man—an apiarist whose natural sweetness had been soured o'er with a thick superstratum of woe. This is the tale he told: He keeps his busy bees—and his bees assist in keeping him busy—on a lot adjoining the domicile of Mr. and Mrs. Foster on the East Oakland heights. His bees swarmed, and Mrs. Foster stole the swarm—so he said. Attorney Earl was prepared to meet the emergency of a purloined stove of superior caloric, but the theft of a swarm of bees was too much for the statutes in such cases made and provided, and the woe-steeped apiarist was refused the warrant for which he prayed. Incidentally the husband of the woman, who had made away with the bees, had made a pass at the apiarist of the soul-sick mien, but Earl hardly considered the assault sufficiently aggravated for police interference, and the words the sad man spake, as he went his way, had more sting than honey in them.

In the next day's issue of the same paper, the editor made these remarks on the case:

> At what stage in its career does the bee become a wild beast? was the question which presented itself to the mind of Prosecuting Attorney Earl, when the East Oakland apiarist wanted a warrant for the arrest of his neighbors, who, he said, had stolen one of his swarms. The bee is property when he stays at home, but when he wanders he belongs to the *feræ naturæ*. He chooses his own master, and very often puts his mark on him. Perhaps Officer Shorey might be sent with a search warrant to determine whether these bees have become wild beasts or not.

◆

"Praktisk lommebog i tidsmæssig biskjotsel," is the title of a new bee-book in the Norwegian language, by Ivar S. Young, Christiania, Norway. We acknowledge the receipt of a copy of it, but as we cannot read it, we can only judge of the contents by its illustrations, which are first-class, and show that it is a modern and progressive little book.

◆

Swarming is now the order of the day. Be sure to have hives in readiness to use for increase. The weather to-day—Saturday—is hot and damp, from frequent showers, and is just the right kind for honey production. White clover is just commencing to bloom, and all around the apiary is as "merry as a marriage bell." From all accounts we conclude that the clover generally has not been damaged by the drouth, to any extent worth mentioning.

◆

Our Success as honey-producers depends upon the quality of the queens. The best queen should have sufficient bees to enable her to lay to her full capacity.

◆

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 9, 10 and 11, 1887. The Secretary's notice will be issued soon—naming the place of meeting and other particulars.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Shade for Hives.

Query 427.—If you had a small apiary, the colonies of which were in single-walled hives, in this latitude, and without any shade for the hives, what kind of shade would you recommend?—J. S., New Hampshire.

Trees or grape-vines.—DADANT & SON.

A board 2x3 feet in size.—W. Z. HUTCHINSON.

Paint the hives white, when no shade is necessary.—G. M. DOOLITTLE.

The shade made by a grape-vine, fruit-tree, etc., will be sufficient.—J. P. H. BROWN.

Face the hives to the north and lean boards against them where the sun strikes them.—C. W. DAYTON.

I should use a flat board on top of each hive that would project far enough to give the necessary shade.—J. E. POND.

A board longer and wider than the hive, letting it project in front and on the west side.—H. D. CUTTING.

Shade-boards give good satisfaction in my locality. They may be made of any thin, cheap lumber or of shingles. I would make them some wider and longer than the cover to the hive.—G. W. DEMAREE.

For immediate use, boards projecting over the south side with an air space between them and the hive.—C. C. MILLER.

Face the hives to the east, and use a shade-board 2x3 feet, and place it on the hive long way east and west, and projecting all of its extra width over the south side. This is the best shade in the world, and is needed with *any* kind of hive.—JAMES HEDDON.

I make for my hives what I call an "under cover." It is used in place of enameled cloth, and is made simply of thin boards with three cleats an inch thick on top, with strips tacked on below to make a bee-space. A plain board with cleated ends is laid on top for the cover, which is painted, the other not. The air-space between the two covers I find to be all that is necessary to prevent over-heating in hives placed in the sun. If the cover lies directly over the sections, the hot sun will drive the bees out of the supers.—G. L. TINKER.

A shade-board raised 4 or 5 inches above the hive. It is the best shade. If one fears wind he can weight it with one or two bricks. By nailing the shade-board to two boards set edgewise, we keep the shade-board from warping, and also raise it the proper height above the hive. A narrow second board, parallel with the shade-board, nailed into ends through the cross boards, makes a nice place for bricks, which are thus hid. I like these very much.—A. J. COOK.

Grape-vines, trees or boards will be good for shade.—THE EDITOR.

Trebling the Number of Colonies.

Query 428.—I have 20 colonies in 9-frame Langstroth hives, which I wish to increase to 60 colonies, *i. e.*, make an increase of 2 from each colony, and at the same time get as much comb honey as possible. What is the best plan to pursue?—G. B., Ontario.

Natural swarming.—G. L. TINKER.

I should let them swarm naturally, hiving second-swarms.—G. M. DOOLITTLE.

Divide the colonies, and give young laying queens. Use comb foundation, and feed if necessary in order to build up rapidly.—J. P. H. BROWN.

Mr. Hutchinson's plan. When you get beyond 40 colonies you had better halt, unless you are certain of a good fall flow of honey.—C. W. DAYTON.

This question involves too long an answer for this department.—JAMES HEDDON.

I should let all swarm at once, and form nuclei and build these up into strong colonies after the early harvest is over.—A. J. COOK.

Let them swarm; and after a colony has cast a second swarm, *then* practice the Heddon method of preventing after swarming.—W. Z. HUTCHINSON.

If I wanted "increase" I would work for that; if honey was my object, I would work the 20 colonies for all they were worth, and increase as slowly as possible.—H. D. CUTTING.

I do not know, as I know nothing of the locality and surroundings. It may be set down as a rule, however, that very little surplus can be taken in any locality when so large an increase of colonies is made. To do it in my own locality, I should expect to be obliged to feed some to get all in a condition for winter.—J. E. POND.

Your location must be an extra good one for honey-producing, if you can make such an increase and get any surplus honey. You must have powerful reasons for such a heavy increase of bees, or you would not attempt it. Such rapid increase is not profitable unless you can sell the bees at a high price. I would advise just one swarm from each colony. By this course an apiary can be built up fast enough, and a good crop of surplus honey obtained. This is the safest course to pursue.—G. W. DEMAREE.

Permit one swarm from each colony, then increase by division; but care must be taken not to weaken the colonies, and not to divide unless the colonies are strong enough to permit it to be done with safety.—THE EDITOR.

Getting Honey Instead of Increase.

Query 429.—How would it do, if a person prefers honey instead of increase, to hive a swarm on frames with just starters in them, remove the old colony and place the swarm on the old stand, and the next day after destroy all queen-cells, put the old colony on top of the new one, and keep the honey extracted when ripe?—N. S., W. Va.

Undoubtedly the plan would work well in producing extracted honey.—G. L. TINKER.

If you make the queen stay down below, it is all right.—C. W. DAYTON.

If you intend to extract the honey, why not give them two stories of combs at the beginning, and thus prevent the swarming?—DADANT & SON.

With me bees show little disposition to swarm when working for extracted honey.—G. M. DOOLITTLE.

Your plan would work well, but then close attention would be required or some swarms would issue now and then; particularly in a large apiary.—J. P. H. BROWN.

The plan would delay swarming, but not necessarily prevent swarming. Besides, there would be a loss by reason of the bees having to build a full set of combs, a large part of which would be drone or store comb. Plenty of empty combs on hand at the beginning of the season, is essential to a good yield of liquid honey in my locality.—G. W. DEMAREE.

I should prefer to place the swarm on the old stand, and the old colony or hive by the side of it, with the entrance turned ¼ or at right angles with the new hive. Put plenty of sections on top in place of bees and brood from the old hive.—H. D. CUTTING.

It might work well and it might not; I think fully as much honey would be obtained, and with less trouble, by tiering up early in the season, and on so doing as the bees increased in numbers.—J. E. POND.

It would "do," but the honey and brood would be mixed in both stories. I would use a queen-excluder and keep the queen below, and, if necessary, add another story on top filled with combs.—W. Z. HUTCHINSON.

You do not explain enough. If you are to work for extracted honey you could remove the queen-cells, extract all honey, and put on the upper story, hiving the bees right in the same hive. If you wish comb honey, do as Doolittle, Heddon and Hutchinson advise; if you want extracted honey, do as I suggest in the last edition of my book; and you need not have any increase. In working for comb honey you will double colonies.—A. J. COOK.

If you use a queen-excluder it might work. If necessary give the bees surplus room above.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near tne center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest: ○↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Perfect System of Wintering Bees.

W. Z. HUTCHINSON.

On page 312 I stated that at another time I would say more concerning the subject then treated of, and also explain some of the other points in which I differ from my friend Clarke in his review of my book, on page 229.

To the ordinary honey-producer, I feel certain that no advantages would accrue from forcing early brood-rearing by means of artificial heat, even if it should be made successful. The comparison of market gardeners forcing early vegetables well illustrates the idea that Mr. Clarke desires to express, but is not analogous so far as *results* are concerned. Early-raised vegetables sell at high prices; bees that are hatched "too previous" are simply "boarders."

Some have asserted that, "they never saw a colony too populous at *any* time of the year." I have. Of what use is a horde of workers when there is no honey to gather? I understand, of course, that there must be sufficient bees to keep up the requisite heat during the winter, but further than this, bees are simply "consumers." The fewer bees we can have, except during the honey harvest, the greater our profits. (Mr. Doolittle has given us some most excellent articles upon this subject, and all holding different views would do well to look over the back volumes of the BEE JOURNAL and read them.) The cellar wintering of bees enables us to reduce their numbers to the minimum during the non-producing season; while spring protection helps us to secure the maximum of workers in time for the harvest. Bees naturally generate sufficient heat to enable them to rear all the brood they can care for, provided they are so protected that all the heat is saved; and there is plenty of time, from the beginning of the brood-rearing until the harvest opens, for the bees to fill the hives with workers and the combs with brood.

By a perfect system of wintering, I mean one that will invariably produce the same results. One in which the conditions are likely to be different each year, can never be a perfect system. We can, of course, have uniformity of stores when wintering bees in the open air, but the severity and irregularities of the weather are beyond our control. One winter may be "open," and in the next the cold may be severe and long-continued. In a good cellar we can control the temperature, the ventilation, the moisture, etc., and we can have the conditions the same every year. In a recent article in *Gleanings*, Prof. Cook expressed my views exactly when be said: "Now, why I prefer a cellar is this: If the cellar is right, we are always safe, providing we look out for food. With chaff hives we are not safe; at least it so seems to me, even in the latitude of central Ohio. Occasionally a long, severe uninterrupted winter comes, and the bees are swept away, when those in the cellar are as safe as ever. Of course the cellar *must* be right, but that can be secured with ease and certainty."

Rogersville, ♂ Mich.

Bee-Keepers' Magazine.

Superstitions of Bee-Culture.

REV. J. W. SHEARER.

It is amusing to note the superstitions and fancies concerning bees, which have existed at different times, some of which still have their faithful adherents in rural places.

There is in Lincolnshire, Essex and Cornwall in England, a superstition that bees desert a hive on the occasion of a death in a family, unless informed of it by rapping on the hive. The belief that hives should be wrapped in mourning is current in Lincolnshire.

In Northampton the entrance of a bee into a cottage is deemed a certain sign of death, and if a swarm of bees alight on a dead tree or a dead branch of a tree, there will be death within a year.

In Yorkshire there is a custom of inviting bees to the funeral. These were doubtless originated from an observation of the fact that bees are attracted by the scent of fresh varnish, working on superstitious minds.

It is said by some that bees will never live in a quarrelsome family. What a blessing if among bee-keepers such an idea would quell all rising feelings of difference in the family.

Some think they will not thrive if stolen, whilst in other places it is considered *unlucky* to purchase bees; that the only way to get them is to have them given, catch a wild swarm, or to steal them.

Acting on this silly superstition we have known good people to go to a neighbor's house, take a hive of bees without his knowledge, and leave in payment some other goods, thinking that "ill luck" would follow them if money be paid. In this superstition there is a shade of truth. Among such people bees are got from their nearest neighbors in summer when bees are flying freely and carried quietly home. Of course the old bees return to the old stand the next day, and the removed hive is "unlucky" because weak in bees for some time until it can recuperate. If the colony has already swarmed, as is often the case, the remaining bees are too few to build it up in a good swarm that season. The observation of results without a knowledge of the cause, or the method of preventing it, gave rise to the superstition in minds already inclined thereto.

The Georgics of Virgil contain some of the common superstitions at that early period. This writer, with others, attributes the virtue of "tanging," to attract bees, to qualities implanted in them by Jupiter that distinguish them from solitary bees and other insects.

This fable is grandly recorded in the mythological belief of this period. Kronos, "the harvest God," having succeeded his father Uranos on the throne of the gods, married his sister Rhea, who bore him several children, among whom was Zeus or Jupiter. To prevent the fulfilment of an old prophecy that his first born should succeed him on the throne, Kronos swallowed his first five children soon after they were born. When the sixth child Zeus appeared Rhea determined to deceive the husband, and gave him a stone carved in the shape of an infant, which he swallowed, and believed himself freed from danger. Meantime Jupiter, the new-born child, was conveyed to the island of Crete, and concealed in a cave on Mount Ida. The nymphs Adrastea and Ida tended and nursed him, the great Amalthea supplied him with milk. Lest the infantile cries should reach the ears of Kronos, the Kuretes or Corybantes (the priestesses of Rhea) were stationed at the mouth of the cave to keep up a continual din by clashing of their cymbals. This attracted a swarm of bees, which settled in the cave, and furnished honey for Jupiter.

This statement was received by the early Greeks as gospel. From the statement they accepted the fact that bees are attracted by such noises and applied it in practice to settle runaway swarms. Hence the origin of "tanging."

Is it now time that people should abandon this foolish superstition, which originated in old Grecian mythology? The question answers itself. This superstition also points towards the probability of superior knowledge of bee-culture among the Greeks from whom the late modes of management were derived, as indicated by the presence of this superstition which originated in their mythology. It must have originated when men believed and acted on their belief in mythology.

There is a curious superstition concerning the *origin of bees* from putrid cacasses. This was the general belief of the ancient. Virgil's recipe for the production of bees in his fourth Georgics is so striking that we quote a few lines of Dryden's translation:

A steer of two years old they take whose head
Now first with burnished horns begin to spread;
They stop his nostrils while he strives in vain
To breathe free air, and stuggles with his pain.
Knocked down he dies; his bowels bruised within
Betray no wound on his unbroken skin.

* * * * * * *

The tainted blood in this close prison pent,
Begins to boil and through the bones ferment:
Then wondrous to behold, new creatures rise,
A moving mass st first, and imped with wings
The grub proceed to bees with pointed stings;
And more and more affecting air, they try
Their tender pinions and begin to fly.

Hollingshed repeats this belief in his "Chronicles of England, Ireland and Scotland" as late as 1807. "Hornets, wasps, bees and such like whereof we have great store, and of which an opinion is conceived, that the first do breed of the corruption of dead horses, the second of pears and apples corrupted, and the last of kine and oxen; which may be true, especially the first and the last in some parts of the beasts, as also the second, since we never have wasps but when our fruit beginneth to wax ripe."

Swammerdam tells us that in his day many great men believed these stories, and among them Gœdært and De Mei, who ascribed the origin of bees to certain dunghill worms.

For the American Bee Journal.

Rendering Old Comb into Wax.

IRA BARBER.

Last winter, at the Albany and New York Bee-Keepers' Convention, I read an essay on rendering old comb into wax. It was the last plan that I had tried, and one that had proved a great success with the kinds of comb that I had to work with at that time. On page 88 it is reported as follows:

"Ira Barber uses a large kettle, holding 25 pails of water, and melts up the old comb from 20 to 25 hives at once, putting in only a few combs at a time; keeps a good fire, but not to boil; takes out with an 8x10 inch basket; strains as fast as dipped, and cools in large dishes."

The comb that I rendered after that plan was nearly all filled with bee-bread, and would sink to the bottom of the kettle, leaving but little refuse on top, and the wax could be readily dipped off by sinking a wire basket into the mass, and dipping the wax from the inside of the basket. A neighbor of mine lost a large part of his bees the past winter, and has just tried my plan of getting the wax out. The result is, that he meets with perfect failure. The comb that he has is nearly free from bee-bread, and when melted in the kettle it nearly all floats to the top, and not 10 per cent. of the wax can be dipped off; while with combs filled with bee-bread, as mine were last year, fully 90 per cent. could be dipped off.

When I gave the essay to the public at Albany, I had no doubt in my mind but what any old combs could be rendered successfully on the plan given, but after seeing it fail on ordinary comb, I think it my duty to caution those interested in the matter, before too many meet with failure. With comb containing bee-bread it is a perfect success. With old comb without bee-bread it is a failure.

Two years ago I had some 75 or 80 colonies lose their queens while swarming, and at the end of the honey season the weather was so unfavorable for young queens to fly, that the result was I did not get them queened in time to save them, and as they had no queens all through the honey season, the combs became perfectly paved with bee-bread.

The honey season was an extra good one that year, and the honey went into the sections while the bee-bread lay in the brood-combs below, and this was the comb that I had to get the wax out of, and that the kettle-plan proved such a success with. I hope some have tried the plan given at Albany with ordinary comb.

De Kalb Junction,δ N. Y.

Indiana Farmer.

Honey Production in California.

DELOS WOOD.

My location is in one of the many canyons of the Santa Inez mountains, in Santa Barbara County, Calif. The ground occupied by the apiary slopes to the south, and is sheltered from wind by the abrupt hills that form the sides of the canyon. The hives are arranged in rows eight feet apart, running north and south, and five feet between the hives in each row, which gives room to run a wheel-barrow at the back of each row, and the five foot space between the hives affords sufficient standing room for the operator at the side of the hives, the entrance facing the east. The rows being eight feet apart, leaves sufficient room for the working bees to go and come without interfering with the manipulation of the hive in the row in front.

I work entirely for extracted honey, and use the same sized frames in the supers as in the brood-nest. The hive is a modified Langstroth, the frame being shorter and deeper than the standard Langstroth. The covers and bottoms are not nailed to the hives, and when more room is needed I take off the cover and put another full sized hive on top, generally, using them two stories high, but running them up three and four stories high when needed. I have run them up seven or eight, but this is not to be commended, only when the apiary is large, and sufficient help cannot be obtained to extract the honey as fast as it is stored, two and three stories being the most profitable. The extracting house is at the south end of the yard, which gives a down grade to wheel the honey from the hives to the extractor.

The door opens in the northeast corner of the house. In the centre of the north wall, is a turn-table, by means of which the combs full of honey are turned into the house, and the empty combs are turned out without letting the bees into the building.

On the other three sides I have windows made to slide, to admit air and light. Outside of the windows the opening is covered with wire cloth extending 6 inches above the opening, leaving a space of ½ of an inch between the wire and the siding at the top to allow room for the bees to escape when they happen to be brought in on the combs. They fly to the window, run up the wire and run out. Bees trying to get in, pass up to the top of the window, then drop down, and go up again, and drop down, but the wire going above the opening, they cannot see in, and do not pass over.

A table 2 feet wide and 6 feet long stands at the west window for uncapping; a beveled hole is cut through it at one end, beneath which is placed a galvanized iron can 20 inches high, and 22 inches across. In this can is a galvanized wire basket, with stout rim and handles of sufficient strength to hold the weight of the cappings, which fall through the opening in the table. The basket should not reach the bottom of the can by 6 inches or more. The wires should be of coarse mesh, to allow the cappings to drain freely.

A cleat nailed across the hole in the table, with a ¼ inch iron pivot with a dull point extending upward ¾ of an inch on which to rest the frames while uncapping, is a great help in turning the combs.

The extractor stands at the end of the table in the southwest corner of the room, and holds eight frames at once; is pinion geared, no cogs to break, or belt to slip, and runs the lightest of any extractor I ever used. The combs are all reversed at once by moving a small lever about 6 inches without taking them out, and the eight are reversed quicker and easier than one could be lifted out.

The honey runs out of a faucet at one side of the bottom into a "float strainer," and is carried by a 2-inch tin pipe through the south wall into a galvanized iron tank outside of the house.

The float strainer is a tin can about one foot square, with a partition reaching within ½ of an inch of the bottom, placed about 4 inches from one end. In the small side a coarse wire basket is hung, into which the honey runs from the extractor and passes under the partition, runs up on the other side to the top and flows through the pipe which connects this part of the strainer with the honey tank. The chippings of comb and other impurities float, and nothing but pure honey passes under the partition. The wire basket can be lifted out and scraps emptied as often as is required.

The honey tanks are round, and of a capacity of one ton, made of galvanized iron, a hoop of ¼-inch round iron, large enough to pass off and on easily, covered with heavy brown muslin, constitutes the cover of the tank, the weight of the hoop holding the cloth tightly over the top of the tank. The heat from the sun evaporates the excess of moisture which escapes through the cloth. A light cover of ½inch lumber is put over the tank at night to protect it from dew or rain. The ripe honey settles to the bottom, and is drawn off through a faucet into tin cans and sealed up by screwing the covers tightly on. The unripe honey rises to the top of the tank, and is ripened by the heat from the sun. The cappings which fall into the basket under the table after draining, are removed to a "sun extractor" and melted into wax under glass. The honey remaining in the cappings will sink to the bottom of the extractor, and is drawn off through the faucet.

A common flat-bottomed wheel-barrow is a good thing for taking honey from the yard to the extractor. I have a box fastened over the wheel with a division in it. One end is just large enough to fit the smoker, the other carries a paper of wire nails, a small hammer, a long, narrow honey-knife, queen-cages, etc., etc.

I use nine boxes with hinged covers, and cleats on the end of the boxes for handles, each box holding five combs hung the same as in the hive. Three boxes, filled with empty combs, are taken on the wheel-barrow to the hives, then the combs with honey are taken from the hives and put in the boxes, and the empty combs put in the hives. When the boxes are filled with honey, they are wheeled to the house and put on the outside of the turn-table. The assistant working inside places a similar box with the emptied combs on the turn-table inside. The table is turned carrying the honey in and bringing the empty combs out. As fast as the honey is extracted the combs are put in the boxes ready to send out. The combs are not returned to the hives from which they are taken, but to the others, thus avoiding opening the hives a second time. Any combs containing brood are placed by themselves and given to such colonies as may need strengthening.

Santa Barbara, ♀ Calif.

For the American Bee Journal.

Safe Introduction of Queens.

AARON BENEDICT.

I have read Mr. Doolittle's article on page 309, on the subject of introducing queens and dividing colonies, and I consider his plan excellent as far as it goes. As my plan of doing the same thing is a little different, and with me is very nearly an entire success, I will give it.

I always drum out the bees and queen, no matter what kind of hive they are in. If it is a movable-comb hive, I remove the honey-board and surplus arrangement, place the cover back on the hive, and then give the bees a little smoke at the entrance; Mr. Doolittle gives the smoke the first thing.

I now commence to jar the hive as soon as the bees are up in the cover, and shake them out on a cloth. As soon as I find the queen, I remove her. I have in readiness a cupful of water in which has been steeped catnip, pepper-mint or horse-mint, either will do; it need not be very strong. I take this decoction in mouth, mouthful after mouthful, and spatter it down in the hive, bees, and on the cloth, thereby wetting the bees. I now take some more of the same in my mouth, blow it on the queen in her cage, and then let her run in with the bees, when the job is done.

I have introduced hundreds of queens for myself and others in this way in the past 15 years, with almost entire success. In the drumming process the bees are filled with honey and will not hurt anything in that condition. I do not think I lose one queen in fifty. Last August I went 36 miles and introduced 17 queens. I put them in in less than a day. I have since heard that the bees are all changed to Italians.

Mr. D's plan of making colonies by dividing is correct. When bees swarm naturally they fill themselves with honey so they will have something to begin to keep house with. The drumming causes the bees to fill themselves with honey; in this they are like a natural swarm. I would have this done late in the afternoon, and let them remain in the forcing box over night; in the morning throw a cloth over the old hive, then hive the swarm, and in about an hour remove the cloth, when it is done.

Bennington, ⊙ Ohio.

Exchange.

Bees as "Pomologists."

J. M. STAHL.

Not a few believe that bees injure fruit. They are frequently accused of injuring peaches, apples, berries, and even grapes. I do not believe this; but though it be correct, the bees are the best friends of the horticulturist. Did you ever think why? Sex is not confined to the animal kingdom by any means; plants are sexual. The sexual organs are in the blossoms. For the blossoms to produce fruit the ovules must be fertilized by the pollen from the anthers at the summit of the stamens, which falls upon the stigma, and traversing the style of the pistil, reaches the ovary.

In this process of fertilizing, insects are important aids, and in quite a large number of cases are essential aids; and of all insects bees are the most important workers. They seek the honey to be found in the blossoms; and while on this quest they disturb the anthers, knocking the pollen upon their wings and bodies, and in this way conveying it to waiting stigmas. In a large class of flowers the work of insects is essential to fertilization, either because the stamens and pistils of the blossom do not reach maturity at the same time, or the pistils are turned away from the stamens, preventing the pollen from falling on the stigmas, or else the anthers are below the stigmas, having the same effect; while other blossoms have no pistils or else no stamens; in all these cases self-fertilization is impossible.

To fertilize such blossoms it would seem that the creation of the bees had been especially designed, so well do they perform their work. First, the bees are formed just right to accomplish it. Then the flower has the honey to attract the bee; and when the conditions are most favorable, the flower sends out a fragrance to yet further attract the bee. Prof. Gray calls this fragrance the "flower's advertisement." But it may occur to the mind of the reader that the bee would visit flowers of different species and thus occasion the greatest confusion. But it is not so. The bee has a keen sense of taste, and never mixes its nectars, but as the nectar of all blossoms of each species tastes alike, it confines each visit to one species. Aside from this, having found nectar in one blossom, it would naturally seek in others having the same appearance and fragrance. To get at the honey the bee must twist itself into all possible shapes and positions —a position of Nature to secure the dislodgement of the pollen; and she also doles out the nectar in small quantities that the bee may be compelled to make frequent visits. It is also a fact worthy of note that the blossom does not yield nectar until it is ready for its part in fertilization.

This phase of the phenomena is curious enough to be interesting, but there is an intensely practical aspect of the case. Nature would not go to so much trouble for nothing, and if there was not an important work for the bees to perform, there would not be these provisions made for it. We are forced to the conclusion that where there are no bees many blossoms will fail of being properly fertilized, and hence fail to mature fruit. ....When we consider the work done by bees, we are justified in calling them "pomologists."

I am certain that bees do not injure fruit at all. Most of the destruction blamed upon them is the work of other agents. The jaws of the bee are too weak to puncture the skin of the most delicate grape. Only after it is pierced does the bee harm the fruit.

Quincy, ⊶ Ills.

For the American Bee Journal.

Can Farmers keep Bees Profitably?

CYRUS T. FOX.

I send you the following report of the proceedings of our recent meeting as reported for the Reading, (Pa.) *Times*, when the bee-question was discussed. It is as follows:

This question elicited quite an interesting discussion at the meeting of the Berks County Agricultural Society.

An essay on the subject by a Robeson township farmer, was promised by ex-President Jacob G. Zerr, of Union township, which will be presented at the next meeting; and a letter was read from William G. McGowan, of this city, regretting his inability to be present on account of illness. Mr. McGowan furnished a number of pamphlets on bee-culture for free distribution.

John Gottshall, of this city, opened the discussion by stating that he had kept bees for fifty years, in Alsace township and in this city. After his long experience he regarded the Egyptian bee as the most profitable, and thought every farmer would find it of advantage to pay more or less attention to the subject.

Ezra High, of Cumru township, said that he had been keeping bees for years, but he does not pretend to understand bee-culture thoroughly. If every farmer kept from 4 to 5 colonies there would not be enough material for them to subsist upon. They would soon exhaust everything and starve. He put these questions to the President, Judge Stitzel, who spent some time on the Pacific coast: "What is the bee-pasture in California? Is it sage bush?"

Hon. George D. Stitzel answered that California is divided up in valleys and mountains running north and south. On the mountains the wild sage grows luxuriantly, which is the favorite pasture for the bees of central and northern California. In the orange country, in the southern portion of the State, the bees feed upon the orange blossoms along with the sage, and the honey of southern California is superior to that produced in any other section of the State. The bees come long distances to get the orange bloom, and there is a decided orange flavor about their honey. He said that he takes no interest in the keeping of bees, as they do not like him.

Dr. A. Smith said that bee-culture is something that will pay. There is no trouble about providing sufficient food, as bee-keepers make the pasture for the bees, by putting out white clover, buckwheat, etc. Bee-culture requires a person who is peculiarly adapted to the business. If the bees are averse to you, it is difficult to succeed with them. There are persons who cannot go near them without being attacked. The speaker kept bees for about 25 years, and could do anything with them. He found it a most interesting avocation, and would not discourage it. The question is: Will it pay? He had obtained over 200 pounds of honey from one colony, but the very next winter he had but one colony left. Now, if the farmers of Berks county have time to devote to the industry, they will find it a profitable business, but it will not pay unless you give it proper attention.

Reuben W. Scherer, of Oley township, one of the vice-presidents of the society, said that at different meetings he had expressed himself in favor of "mixed farming;" that is, that farmers should have a diversity of interests, and not have their time and attention absorbed by one or two special things. He was, therefore, decidedly of the opinion that half a dozen colonies of bees can be profitably kept by any farmer. There is nothing on the speaker's farm that pays better than bees. He keeps just enough bees to provide sufficient honey for his own table. He, therefore, always has an abundance of the mellific product, and finds it a delightful thing to have in the house. He has a 10-year-old son who is an adept in looking after the bees. If there is a colony swarming, the boy can attend to it, or the speaker's wife can. He believes that every farmer can engage in bee-culture, so far as having the time at his disposal. As to the profit, he knows of men engaged in the business who give it great care, that derive a handsome income therefrom. There is a man in his neighborhood who has from 50 to 100 colonies of bees. He observes improved methods of management, and does well.

How to manage so as to get the best results out of bee-keeping is what the farmer wants to know. The speaker has had this experience: In the spring of the year there is no difficulty about the bees obtaining provender. The best of all honey in his section is produced from peach and apple blossoms. White clover grows spontaneously in his vicinity, and always furnishes excellent pasture. Then a piece of buckwheat can be sown convenient to the apiary, and this will give the bees sufficient work for the remainder of the summer. As for the different kinds of bees, the Italians are well enough in their place; but as for himself he would prefer the little black bees. As to bees liking some people and not others, much depends upon how they are approached. They hate whisky and tobacco. There is another feature about bees which ought to induce every farmer to keep them, and that is their working qualities. The speaker has often taken a lesson from the bees in hot weather, when he has felt tired and exhausted by the heat. He has turned to the bee-hives, and after observing the industry of the busy little insects, it has made him go back to work with renewed energy and increased perseverance.

John M. Moyer, of Robeson township, said he could not see how Mr. Scherer's son, aged only 10 years, could hive a swarm of bees. He then related a funny incident of how he had called together his whole family, and then all his neighbors, using tin kettles and all kinds of utensils wherewith to create a din, and yet the bees rose high in the air, and were off, notwithstanding all the efforts to secure them. At his father's house as many as 20 colonies of bees were kept, and at least one-half of them went off every year.

Hon. S. E. Ancona said that he was pleased with what had been said by President Stitzel in regard to the production of honey in California. He then related his own experience in keeping bees, and how when he resided several years ago in Muhlenburg township, he paid some $25 or $30 for a patent hive, and left his bees to forage upon his neighbors generally, while he indulged in bright visions of an abundance of honey to gladden his store. Unfortunately he got no honey, and at the end of his experience had no bees. He then presented the hive to the late Alexander Burnett, and in about two years was given a box of honey, which was all that he realized from his investment. The speaker believed, however, in encouraging everything of this kind. Diversified interests are essential to success in agriculture in this country. It is impossible to compete with the West in the matter of raising grain. He is satisfied that bee-culture can be conducted successfully so as to add very materially to the comfort of one's home. In conclusion he alluded to lesson of industry and thrift, which had been conveyed by Mr. Scherer in his remarks, and which aptly illustrated the force of the old spelling-book rhyme:

> "How doth the little busy bee
> Improve each shining hour,
> By gath'ring honey all the day
> From ev'ry opening flower."

Mr. Scherer replied to Mr. Moyer in regard to his son hiving bees. He says that the boy does it without the least trouble. A colony may swarm on the topmost limb of an apple tree, and the boy will go to the end of that limb, cut it off with a saw, and bring the swarm triumphantly to the hive. Upon one occasion a strange swarm was at the end of a limb of a locust tree; the boy cut off the branch, and carried it home on his shoulder fully a quarter of a mile. It proved to be colony of Italian bees, and was got for the mere hiving of it. As to hives, no one would catch him paying $30 for a patent hive! He purchased a colony in a common box, 13 inches square for $4. A surplus box was placed on top of this for the honey, and that constituted the bees' quarters, and did exceedingly well. In constructing hives, he takes either long straw, or makes them of any kind of boards, putting cross pieces of wood inside, and never had a colony of bees to freeze. He has no belief in the various superstitions about bees, the beating of kettles when they are swarming, etc.

John M. Moyer inquired whether any of his swarms had gone off.

Mr. Scherer replied that upon one occasion he had delayed too long, and a swarm went off for him.

Mr. Moyer—Did you try to stop them?

Mr. Scherer—After they had started there was nothing that could have been done that would have brought them back.

Mr. Moyer—Did you use any words about it?

Mr. Scherer—That would have been just as useless as beating on tin pans and kettles.

Capt. William G. Moore, of Womelsdorf, believed that the majority of farmers would not be successful in bee-culture, especially after what had been said in regard to the experiences of some of the gentlemen present. A friend residing in Heidelberg township invested $50 in bees, and had $5 worth of money out of his investment.

John Gottshall said that he thought it would pay every farmer to have about half a dozen colonies. Rigged out with a good bee-veil, and a gum coat, with his hands first washed in strong salt water, he has no trouble in examining his colonies from time to time, and taking out the combs.

Reading, Pa.

Plowman.

How are the Bees Doing?

C. H. DIBBERN.

This is about the first question asked at this time as one bee-keeper meets another. Bees in this part of the country that are run on modern principles, are in exceptionally good condition. There have been some serious winter losses, but it must, generally, be laid to carelessness and neglect. Our 175 colonies are now (middle of May) in very fine order, in fact, the best I have ever had them so early in the season. A good many hives are becoming crowded, and we have had to put on cases of sections for surplus honey to give them more room. I never knew bees to breed up so rapidly, since putting them on the summer stands.

Now we are ready for the honey harvest. We have got the bees by the millions, to gather the nectar from the prospective crop of honey-locust, white clover, linden and sweet clover. That is certainly a very satisfactory state of affairs, and is perhaps as much as even the most experienced apiarists can do. Very much, in fact everything, still depends on the plants that actually produce the honey. Then, in order to form a correct idea of what the coming crop of honey will be, we must look to the condition of the plants and trees from which it is to be gathered by our thoughtful little servants—the bees.

Owing to very dry, hot weather last fall, much of the white clover was burnt out, and the crop at present does not look very promising. As this is the source of our greatest amount and finest quality of honey, this is a serious drawback. Still it is not best to always look on the dark side; it is possible that good weather will more than make it up. Then, too, the honey-yielding trees—the locust and linden—may be better than usual this year, and make up the loss. At any rate, when the bee-keeper has done faithfully all that can be done, and the supply of honey fails from causes beyond his control, as it occasionally does, he has the satisfaction of knowing that the failure was caused by no fault of his.

The past month has been very dry over a large section of the West, and if we do not get soaking rains soon, the prospects for a honey crop cannot be rated at over "seventy-five," as the agricultural reports would say.

At this time of the year bees need a good deal of water. Where it is not furnished naturally by springs or running streams, it should be provided for them. A good plan is to set a keg or barrel on a gunny-sack spread over a box, and put a pailful or two of water in every morning. Bore a gimlet hole in the barrel near the bottom, and allow the water to drip out on the sack, which should be kept wet all day. Occasionally throw in a handful of salt, as the bees seem to require it, and will keep the water pure and sweet. It is wonderful how the bees will swarm around such a place all day long. Often bees are required to fly a mile or more for their water supply, and as it takes many thousands constantly away from the working force in the fields, the loss from this cause is much more than most bee-keepers imagine. Then, too, why require the bees to wear out their wings going long distances for what can be so easily provided nearer at home?

Milan, Ills.

New York Medical Journal.

The Black Bees of Tasmania and their Medicinal Honey.

In a recent communication to the Paris *Acadimie de Medicine*, which is published in the "Progress Medical" for April 16, Dr. Thomas-Caraman, of Forges-les-Eaux, reported upon a matter which must be regarded as among the most notable of the therapeutic novelties of the day, being nothing less than the discovery of a sort of honey possessing in a remarkable degree the medicinal properties of the *Eucalyptus globulus*, or of some species of *Eucalyptus*.

It seems that, about three years ago, a distinguished French naturalist, M. Guilmeth, who was traveling in Tasmania, came suddenly upon a grove of gigantic eucalyptus trees, from 260 to 390 feet high, and with a trunk so large at the base that it took forty of his Kanackas, joining hands, to reach around one of them. High in these lofty trees he discovered what he at first took to be enormous galls, but which he soon ascertained were the dwelling places of swarms of small, black, wild bees, of a variety before unknown to him. Dr. Thomas-Caraman proposes for this bee the professional name of *Apis nigra mellifica*. Besides being black and smaller than the ordinary honey-bee, this wild bee has its languet rather more developed than that of the domestic bee. M. Guilmeth attempted, unsuccessfully, to domesticate it in Tasmania. He caused some of these immense trees to be felled, and secured the honey. The largest individual store of honey weighed as much as 11,000 pounds avoirdupois.

The honey is described as a thick, homogeneous, somewhat transparent, syrupy liquid, of a deep orange color; having an odor suggestive at once of its containing eucalyptus principles; very soluble in water, in milk, and in wine, but much less soluble in alcohol; and very difficult of fermentation. Its specific gravity is 1.44, and it rotates the polarized ray 22°. In round numbers 1,000 parts contain 611 of invert sugar (mostly levulose), 2 of ash, 215 of water, and 171 of active principles, including eucalyptol, eucalyptene, terpene, cymol and odorous, resinous, and coloring matters. Its taste is described as very pleasant. Administered to dogs, to the amount of from 2½ to 5 ounces a day, it slows the heart's action, and this effect soon becomes so pronounced as to suggest, in Dr. Thomas-Caraman's words, a struggle between the pneumogastric nerve and the cardiac ganglia. At the same time the temperature falls about 1° C. The effects last for at least 24 hours, and include a slight tendency to sleep, but without any symptom of toxic depression. As the result of experiments on himself and on one of his friends, Dr. Thomas-Caraman states that, on taking a table-spoonful of the honey in a little tepid water or milk, after a few minutes one perceives a gentle, agreeable warmth take possession of the whole person. At the end of half an hour, the elimination of the active principles by the air passages having begun, the voice becomes clearer and the breath perfumed; the lungs feel more elastic, more supple. Having continued the use of the honey for a week, four table-spoonfuls daily, the author, who speaks of himself as respectably fleshy, found that he could go up two pairs of stairs, two steps at time, without stopping to take breath or feeling at all blown. At the same time there was slight diuresis with an increase of urea, and the urine had a decided odor suggestive of that of the *Acacia farnesiana* (the plant from which the perfume called "new mown hay" is made).

Besides his observations of the physiological action of the honey, the author cites certain trials of it as a medicine. These data lead him to consider it a valuable aliment, an efficient and palatable substitute for cod liver oil; an anticatarrhal; an agent affecting the heart in a manner comparable to the action of digitalis, but free from the inconvenient properties of that drug; a febrifuge; an antiparasitic specially applicable to the destruction of the micro-organisms of tubercular and scrofulous neoplasms, the *Leptothrix vaginalis*, and oxyures; and, finally, an antiblennorrhagic, by virtue of its being more actively eliminated by the uro-genital tract than either copaiba or sandal oil. It is destined, he thinks, to play a great part in the treatment of laryngeal, bronchial, pulmonary, cardiac and scrofulous affections; in malarial and typhoid fevers; in whooping cough and influenza; and in renal, vesical, and vaginal troubles.

It may be said that Dr. Thomas-Caraman holds up to our view a somewhat rose-colored picture, but it must be confessed that there is no inherent improbability in the notion that an animal organism, like that of the bee, may be able to elaborate the medicinal principles of the eucalyptus in greater perfection than the art of pharmacy can furnish them. Should his impressions be confirmed, however, the practical question at once comes up as to the extent to which commerce can supply us with the genuine wild honey of Tasmania.... It would be interesting to know to what particular species of the genus *Eucalyptus*, the gigantic trees found by M. Guilmeth, belong. Perhaps the active principles of the tree may yet be made available without the intervention of the *Apis nigra mellifica*.

[The above was sent to us by Mr. Eugene Secor, of Forest City, Iowa, and refers to the eucalyptus honey mentioned on page 243. Honey is no doubt one of the most valuable of medicines, and nearly all the diseases mentioned by Dr. Thomas-Caraman are cured by domestic honey from the American linden tree. Mr. Luther Corey, of Yorkshire, N. Y., says: "On Oct. 1, 1882, I was taken with bilious and gastric fever, followed by a relapse in the shape of inflammation of the lungs and their surroundings, also congestion of a portion. Until within two or three weeks I was unconscious, and therefore not aware of my condition, at which time I commenced eating honey, and have taken it at all times of the day and night, until I have eaten five 2-pound boxes of honey. My cough has subsided, and my lungs are healing, much beyond the physician's expectations. Honey is doing the business. I can now walk about the house."

Herr Karl Gatter, of Vienna, Austria, the principal of the public schools, assured us that his life was saved by the use of honey. He published a small pamphlet on the curative powers of honey, and said: "I, a sufferer from hemorrhages, already given up to despair, and at the verge of the grave, was saved by the wonderful curative powers of honey; and now, thank God, I am freed, not only from weakness of my lungs, but rejoice in the possession of perfect health."

Many persons afflicted with various species of consumption, thank the use of linden honey, either for their entire restoration to health, or for the mitigation of their often painful condition of body and mind.

Honey can also be used with advantage in asthma, in constipation, in sore throat; promotes perspiration, lessens phlegm, and is very healing to the chest, sore from coughing.

Honey mollifies; causes gentle purging, divides and dissolves, warms, nourishes, stops pains, strengthens the tone of the stomach, carries away all superfluous moisture, aids digestion, thins and purifies the blood, and animates and strengthens the breast, nerves and lungs. Honey is therefore to be used when suffering with a *cough, hoarseness, stoppage of the lungs, shortness of breath, and especially with the best results, in all affections of the chest.*

Honey has also great value as a medicine for children, and is readily partaken of by them as a choice dainty dish. It is especially useful to children afflicted with scrofula or rickets. In difficult teething, rub the gums with a mixture made of honey and an emulsion of quinces. For the removing of worms, honey has often been beneficially used, and it is often used in diseases of the mouth and throat.

If the Tasmanian honey is superior to the American—particularly that from the linden trees—it is indeed a boon to mankind.

In California several have reported to the AMERICAN BEE JOURNAL that the bees have gathered excellent crops of honey from the eucalyptus trees. The honey has a fine flavor, though it is a very strong one.

The eucalyptus blooms in Australia from December to March, according to locality, but the trees do not bloom much until the tenth year. We would respectfully ask the apiarists of California to report what their experience has been with the eucalyptus and its honey.—ED.]

Bees a Sacrifice to Prejudice.

In the June number of the Southern *Planter*, published at Richmond, Va., just received, we find the editorial article marked, which gives the details of the sacrifice of an apiary because of the damage done to grapes by "the yellow-jackets." The editor, Mr. W. C. Knight, gives the following as "a reminiscence," which will be excellent proof that bees are innocent of the charges against them in the matter of their supposed depredations upon grapes. It proves that they are unable to puncture the skin of grapes, and that the real culprits are the yellow wasp, known as yellow-jackets. The editor of the Southern *Planter* says:

At an early period of our farming life, 35 years ago, we planted a small vineyard of four varieties of grapes—Catawba, Isabella, Norton and Herbemont Madiera—and as grape culture in South Side Virginia, at that time, was limited to a few garden vines, our effort was a pet enterprise. Our method of planting may be mentioned as it secured thorough drainage, and thus, as we think, preventing the rot which is so much complained of now. Trenches were dug the full length of the trellises, which were to be erected to support the vines, their width being 2½ feet, and depth 20 inches. These trenches were run north and south, to afford the rays and light of the sun on both sides of the vines when trained on the trellises, and each trench had a slight graded fall towards and into a head-ditch which was to act as a secret drain, this ditch being filled to the depth of 10 inches with small stones. In the bottom of the trenches were placed a layer of small stones about 3 inches thick, and on these a layer of 2 inches of broken bones, such as could be gathered about the farm and broken into small pieces with the butt of an axe or heavy hammer. The trenches were then filled with the richest mold which could be procured from the forest, care being taken that it had intermixed sufficient sand to make it light and clay enough to give it body. The vines were then planted in the trenches early in the spring, and cut back to two eyes above the ground, the distance between them being 20 feet, allowing the lateral branches to be trained 10 feet on each side of the main stem on four wires 2 feet apart, and securely fastened to posts 8 feet high, which were set midway between the vines. The wires were fastened to the sides of the posts with small iron staples which are easily drawn when it becomes necessary to renew the posts, and thus prevent any disturbance of the wires or vines.

Our vineyard commenced bearing well the third year, and was in fine thrift the fourth year, when it had a serious set-back by the destruction of the grapes, as they ripened, by bees, as we supposed. There were a few hives about 100 yards off, and it appeared that every bee in them was puncturing and sucking the juice of the fruit. It was hastily determined that the bees must be sacrificed for the protection of the vineyard, and accordingly loads of dry wheat straw were brought and dumped near the hives. After night, when the bees were resting quietly, the hives were gently taken from the stands, piled together—the straw piled over them—and the torch applied, so that in a half hour all were consumed. This seemed to be a cruel act, but justifiable under the principle of *ex necessitate rei.*

Our surprise was great when the next day. a bright and clear one, not a bee was to be seen, but the destruction went on, and it became apparent that innocent lives had been sacrificed, and the real depredators appeared in the form of *yellow-jackets.* They were active and voracious, and could, and did, in plain view pass from bunch to bunch, and with their sharp proboscides puncture and suck the juice until surfeited, when they would fly off in a sluggish manner. A few of the common gray wasps would follow and lap up the exuded sweets, and it became clear that the innocent bees had only been doing the same thing. The vineyard was the victim of an unsuspected enemy, and it was a serious question how his ravages could be checked. Knowing something of the habits of this insect in respect to burrowing into the ground for their nests, we called up an intelligent and observing negro man and put him on the watch. Following out the idea suggested by a recent reading of Cooper's *Oak Openings*, in which was described the plan bee-hunters use for finding bee-trees, this man was enabled to trace the yellow-jackets by the direction of their flight to their nests, several of which were found within a few hundred yards. The destruction of these insects was accomplished somewhat after the plan pursued with the bees. After nightfall a large arm full of dry straw was deposited over the nest, and then by a violent knocking on the ground the yellow-jackets would rush up from their burrow, and whilst entangled in the straw, the torch was applied and the whole colony burnt up. After this our vineyard remained undisturbed for years.

We have been thus particular in details, as it may tend to settle the question as to honey-bees, and at the same time be of some service to bee-culturists. The yellowish wasp, which is described in the following article from the *Florida Farmer and Fruit Grower*, is doubtless what is known in Virginia as the *yellow-jacket:*

"Many notable horticulturists have complained of the ravages of the honey-bee in their vineyards, and we, like a majority of fruit-growers, have taken it for granted that such was the case, and said no more about it. There are some persons, however, of an inquiring turn of mind, who did not wish to sacrifice their bees upon a bare suspicion, and who have sat down by a vine loaded with ripe fruit, and watched patiently for the true culprit.

"One of these doubters informed us that he is satisfied, from personal observation, that it is impossible for the honey-bee to puncture the skin of the grape. His experiment was as follows: After removing the crop from the vineyard, except one vine, containing a couple of dozen of ripe bunches, he seated himself and waited patiently for the real culprit. Bees and wasps of various kinds came and went without doing any harm. At length his attention was drawn to a species of wasp, which he described as follows: Color of body, dark-red or bronze; wings, steel-blue, with a yellow spot on each shoulder, and some with a yellow spot on the forehead, perhaps a distinguishing mark between the sexes. This fellow alighting on the berry, with his strong mandibles ripped up the fruit, cutting a long gash as neatly as a doctor's lancet, proceeded to fill himself with the sweet juice, and afterward went to every bunch upon the vine, until all of them were ruined. Other insects, bees included, followed in his wake, and naturally partook of the spoils. May it not be possible that this insect is causing all the damage heretofore charged to our friend, the honey-bee?"

[Yes; yes, and the bees have been persecuted, dragged into court, belied, and finally many have lost their lives on the "altar of superstition and ignorance!" Their innocence, however, is now established beyond doubt! Will the fruit-culturists now please to do justice—*simple justice*—to their little friends, the bees! It is beyond question that, but for the fertilization of the flowers by the bees, there would be no fruit; and the then fruit-growers might be as presistent in their demands for the bees to come and restore their fruit-trees to fertility, as they have been ceaseless in their demands for the destruction of their best friends—the bees.—Ed.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. ——North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Honey Crop of California.—Hamlin & Bearss, Kansas City,⊶ Mo., on May 23, 1887, writes as follows:

A friend of ours in San Diego, Calif., write thus: "Only one-sixth of a crop this year. In our part of the State we shall have no honey, owing to dry weather killing off the clover last summer."

Very Favorable Prospects.—H. E. Hill, Titusville,⊶ Pa., on May 24, 1887, writes:

I think that where bees were properly cared for last fall, the loss in this locality has been small; nevertheless some have lost heavily. One who had 10 colonies, I understand, lost all. Another with 125, has 85 left. Various others report small losses. Out of 51 colonies and 6 nuclei put into winter quarters, I lost 1 colony and 3 nuclei. The remaining 50 are in good condition to meet the honey when it comes, which will be very soon, as white clover is now opening, in some places the large white heads being quite numerous. We are now enjoying a delightful rain, which is timely, as it has been extremely dry this spring. Older and wiser heads say "it has just saved the clover crop!" The prospect is very favorable for a good season.

No White Clover Yield.—R. Grinsell, Baden,⊶ Mo., on May 27, 1887, says:

My bees are in fine condition, and there has been all spring lots of bees and brood, but my 110 colonies have not got 100 pounds of honey in their hives altogether. I am now feeding them. White clover has been in bloom for the last two weeks, but they have gathered no honey from it yet. We had a very wet spell from May 1 up to May 22—not a single day without rain. We have had no rain now since Sunday, and the bees have been getting a little honey out of white clover yesterday and to-day. We may get some honey from clover yet, but I do not look for it. I think some of those that are selling clover honey in St. Louis for 9 cents per pound, will wish they had it next winter, for it will be worth a good deal more then. Bee-keepers will do well this year by holding their honey.

Early Swarming, etc.—D. D. Herrick, Libertyville,♂ Ills., on May 29, 1887, says:

I put 23 colonies into the cellar on Dec. 1, 1886, and on April 12, 1887, I took out 21 strong ones and 1 queenless colony. The temperature ranged from 45° to 48°. My first swarm issued on May 14. Who is ahead of that? A good many colonies are storing in the supers, and all are very strong; but I have had no swarms for a week, as it has been too cold.

Heard the Bees Roar.—Elmer Gabril, Marshfield,⊸ O., says:

Bees do roar in winter after the mercury is below zero, and the colder the weather the louder is the roaring, which I have heard many a time, and have witnesses of the fact besides myself.

Killing off Drones.—A Subscriber at Flint,♂ Mich., on May 28, 1887, writes:

What is the cause of my bees killing off their drones at this time in the year? One colony in particular has killed and drawn out of the hive all their drones, and as yet has not swarmed this season, but they seem to be in perfect state of health in every way.

[Quite often drones are "killed off" between apple and white clover blooms because of a dearth in the supplies, and the bees become discouraged, and for the time being give up all idea of swarming. Then to save their food supply, kill off the drones.—Ed.]

Some Loud Roaring of Bees.—11—S. A. Shuck, (102—98), Liverpool,⊶ Ills., says:

My bees have been wintered on the summer stands unprotected for the last 8 years, except the winters of 1882-83 and 1886-87. During very still, cold weather they can always be heard. In very cold weather, at times they can be heard some 40 or 50 feet from the hives.

White Clover a Failure, etc.—Wm. Anderson, Sherman,⊶ Mo., on May 30, 1887, says:

There will be no honey in this part of the State, unless a change should come in the future. There is no honey coming in, and bees are storing hardly enough to live on. White clover is a total failure; it does not seem to bloom very much. Red clover is almost all killed by the winter. Out of about 50 colonies of bees there is not 100 pounds of good honey, so you may have an idea about the honey in this section of the country. Bees did well the past year; they had more honey when spring commenced than they have now. I have had 3 swarms this season out of 47 colonies. They had about 10 pounds of honey to the hive when spring came, and to-day they have not got 2 pounds per hive. How many colonies of bees can be kept in one place, and make a paying business of it?

[It is impossible to answer the last question—so much depends upon the season as well as the pasturage for bees in the surrounding country.—Ed.]

Loss of Bees by Moving, etc.—O. O. Poppleton, Hawk's Park,⊙ Fla., on May 21, 1887, writes:

The item on page 291 is so worded as to convey an entirely wrong idea of the cause of the loss of the bees brought from Iowa last fall. They were not lost on account of the climatic conditions here, as one would suppose from the item referred to, but from bad carriage in bringing them down here. The car in which they were packed was seven weeks on the road, and the only wonder is that any were left alive on getting here! I tried to bring only 82 of my weakest colonies, leaving 148 colonies back in Iowa in care of my brother. He writes me, under date of April 25, that 138 came through in good condition, containing at that date from 2 to 7 frames of brood each, and averaging about 5 frames of brood each. This is an uncommonly good condition for bees to be in, so early in the season in that latitude.

Working up a Honey Market, etc.—Earle Clickenger, Columbus,⊙ O., writes:

I am trying to build up a local trade on pure honey, but I find it quite difficult; but with all the drawbacks of prejudice in the public mind on account of adulteration, last year I sold about 9,000 pounds of pure honey, and to-day have the largest trade in the city in a retail way. It is a hard thing to convince the people that they can depend upon getting pure honey. I sold 40 colonies of bees last fall, and still have 40 colonies left; those I sold brought on an average $5 per colony. Last year I produced 3,000 pounds of comb honey, and 1,000 pounds of extracted honey. I would like to have saved all of them, but I have "too many irons in the fire."

Moving Bees to Basswood Bloom.—B. F. Woodcock, Pleasantville,♀ Iowa, on May 27, 1887, writes:

Will it pay to move my bees 3 miles north of their present location to a basswood grove? We have had but one or two little showers in this locality since last October; white clover (my usual source of honey) is drying up, and yields no honey, though the fields are white with sickly, puny bloom. I live on the prairie. I went to the basswood grove to-day and find thousands of trees which will bloom profusely. I can get a good location in a friend's orchard. The nearest point for my bees now to reach the timber is 2½ miles, while the bulk of the basswood is 3 to 3¼ miles. Do you think it will pay me to move my 115 colonies at the opening of the bloom? The friend lives 2¾ miles from me. Will many, if any, of the bees come home to their old location after being removed?

[No; it would not pay for the expense and trouble of moving your bees to the basswood grove, which you state is only from 2½ to 3¼ miles from your apiary. Bees appear to enjoy a flight when seeking stores; often passing by *good* pasturage near the apiary, and working on *inferior* bloom at a distance of 2 or 3 miles! It is generally conceded that bees fly from 3 to 5 miles in quest of stores, and as the basswood grove is within that distance, it is just in the right place to suit their "notions."—Ed.]

More Rain Needed.—A. D. Stocking, Cedar Beach,♂ Ind., on May 29, 1887, writes:

It has been very dry here for sometime. White clover is very backward in blooming, and unless we have good rains soon there will be but little white clover honey. We have had several light rains within two weeks, but we had so little spring rains that what rains we have had lately seem to have done sod lands but little good, and grass is suffering; but on spring-plowed lands crops are growing finely. Our prospects for apples are poor; the trees bloomed full, but from some cause but little fruit has set; but where peach-trees are alive we shall have peaches. Bees have built up strong, and have commenced swarming. They wintered well generally in this locality.

Honey from Red Clover.—David Brown, Maple Creek,○+ Nebr., on May 31, 1887, writes:

In the last paragraph of an article by Prof. W. W. Cooke, on page 330, he says: "In the United States, hive-bees never suck red clover." For the last 2 years my bees have collected honey freely from the red-clover field. During the summer of 1885, I accidentally was crossing my clover field (second crop), and found my bees humming from flower to flower, and on examination of the hives, showed me that they were storing honey rapidly from my red clover. Last season they worked considerable on the first crop, but quite freely on the second crop, giving me the finest quality of honey I ever obtained. So satisfactory was the honey that my customers have ordered for next year, if I can only supply a corresponding article. From 8 colonies, spring count, I obtained over 2,000 pounds of comb honey in one-pound sections, mostly from my clover field. For weeks bees could be found at every step, during sunshine, in the clover field. It yielded an abundant crop of seed. Has no one else had a similar experience?

[The Professor, no doubt, meant "never—well, hardly ever"—sometimes—not universally.—Ed.]

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Sellers ask from 7 to 10 cts. for anything off in comb honey; this includes dark undesirable and crooked combs, and 2-pound sections. Good 1-lb. sections, 10@12c.; choice, 12½@13c.—

BEESWAX,—25c. R. A. BURNETT,

Mar. 28. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.

May. 11. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¾@5 cts.; light amber, 4½c.; amber, 4¼c. Comb, white, 12@14c.; amber, 7@9c. Demand good.

BEESWAX.—23c.

May 8. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.

BEESWAX.—25c.

Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20½c. for prime.

May 29. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4½c. Market quiet.

BEESWAX.—19@21c.

May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—We quote: Finest white 1-lb. sections, 12@12½c.; choice white 1-lbs., 11@12c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; good white in kegs and barrels, 6@6½c.; dark, 4 to 4½c. Demand good and market firm.

BEESWAX.—25c.

May 4. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@6c. Sales large and demand good.

BEESWAX.—23@24½c.

McCAUL & HILDRETH BROS.,

May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Very little extracted in the market.

May 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—26 cts. per lb.

Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.

BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.

May 21. C. F. MUTH & SON, Freeman & Central Av.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

◆

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Regular as Clock-Work.—I. R. Good, Nappanee, Ind., put an advertisement in the AMERICAN BEE JOURNAL, and 10 days after sending the copy, writes thus:

> On Wednesday of each week we get the AMERICAN BEE JOURNAL, and that as regular as clock-work! On Thursday I commenced to get orders from parties saying they saw my advertisement in the AMERICAN BEE JOURNAL yesterday. The next day I got a number more orders for bees and queens amounting to $65.80. My advice to all is—Do not advertise in the AMERICAN BEE JOURNAL unless you are prepared for a *rush!* I. R. GOOD.

The experience of Mr. Good certainly is "good enough" for any one. The advertisement he mentions cost him only $2.00, and he had to order it out before a week had passed, because he received orders faster than he could rear queens and bees.

This reminds us of the experience of Mr. Henry Alley, of Mass., who some time since wrote us as follows:

> I get the quickest return from an advertisement inserted in the AMERICAN BEE JOURNAL of any paper I ever advertised in. The BEE JOURNAL is mailed on Tuesday; it reaches me on Friday, and Saturday I frequently get calls for my circular from New York and Pennsylvania. HENRY ALLEY.

As the AMERICAN BEE JOURNAL circulates in every State, Territory and Province, among farmers, business and professional men—it commands an audience upon which advertising cannot be wasted!

◆

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Some Additions to our Catalogue.—WHITE POPLAR 4-PIECE DOVETAIL SECTIONS for a fancy article of comb honey (4¼x4¼ inches—7 to the foot)—in packages of 500 for $2.50; 1,000 for $4.50.

ENAMELED CLOTH, for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 25
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 70
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result —a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Medley of American Bee-Keepers.—I have a few left of this Medley, and any one who desires to look upon the faces of 130 of the principal apiarists of America—dead as well as living—should send $1.00, at once, for a copy, to

E. O. Tuttle, Charlotte, Vt.

* * *

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the Bee Journal.

Advertisements.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents ; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

300 BEST QUALITY ENVELOPES or Letter-heads, neatly printed to order & delivered, $1 ; 100 for 40c. Satisfaction guaranteed. A trial solicited.—Bricker, Printer, Slate Lick, Pa.

BEE-KEEPERS—read and save Money. Sections, Crates, Frames, Foundation, Hives, etc. Sections, $3.50 per 1,000. Send for Price-List. **C. MATHEWS,**
23A13t IMLAY CITY, MICH.

BEES and QUEENS FOR SALE.

ONE Pound of Bees and 1 frame of brood with Untested Queen, $2.75 ; 1 Untested Queen, 60 cts.; 2 Queens, $1.00, BEES, .50 cents a lb.: 3-frame Nucleus, $3.50; 4-frame, $4.00—Queen included. All prepaid.

W. G. HAYEN, Pleasant Mound, Ill.
23A1t

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

WOULD respectfully call the attention of all who use Foundation, to the fact that he has written, published, and now offers for sale a neat little book of 45 pages, entitled

"THE PRODUCTION OF COMB HONEY;"

in which, among other things, is made as clear as possible the question of when, where and how to use Foundation. When empty combs are preferable. When the bees should be allowed to build their own combs. How to prevent the building of drone-comb, etc., etc., etc.

The price of the Book is only 25 cents, and the knowledge gained from its perusal will enable its possessor to save more than the price of the book, in foundation, upon *each swarm hived* ; and secure more honey into the bargain. Don't wait until the swarming season is over, but send for the book NOW—and be ready to test, this season, the plans and methods it advises. 23Atf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Alley's Queens !

Warranted, $1 ; Select, $1.25 ; Tested, $1.50

AMERICAN APICULTURIST 1 year and Select Queen, $1.50. **How to Rear Queens** (300 pages, 100 Illustrations, bound in cloth), by mail, and one Tested Queen, $2. **How to Get Comb Honey,** 20 pages, 10 cents. Address, **HENRY ALLEY,**
21Atf WENHAM, Essex Co., MASS.

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices : One-half ounce, 50 cents ; 1 ounce, $1 ; 2 ounces, $1.50 : 4 ounces, $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

"Boss" One-Piece Sections,

MANUFACTURED BY
J. Forncrook & Co., Watertown, Wis

PATENTED.
JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

COMB FOUNDATION.

DUNHAM Brood Foundation, 40c per lb ; Extra-Thin Vandervort Foundation, 45c. per lb. **WAX** made into foundation for 10 and 20c. per lb. **Ten** per cent. discount on all orders received before the 15th of April. **Samples free.** F. W. HOLMES,
9Dtf Coopersville, Mich.

A GREAT SCHEME ! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,

J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

EXTRA NICE

SECTIONS and **Foundation** at reduced prices. Send for samples.

Also a full line of SUPPLIES at very low rates. Price-list free.

☞ **Cash for Beeswax.**

A. F. STAUFFER & CO.,
3Dtf STERLING, ILLS.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. Sold by Druggists, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
16A12t

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

DR. FOOTE'S

HAND-BOOK OF HEALTH,

Hints and Ready Recipes.

is the title of a very valuable book that gives a great amount of information, of the Utmost Importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping Bathing, Working, etc.

IT TELLS ABOUT

What to Eat,
How to Eat it,
Things to Do,
Things to Avoid,
Perils of Summer,
How to Breathe,
Overheating Houses,
Ventilation,
Influence of Plants,
Occupation for Invalids,
Superfluous Hair,
Restoring the Drowned,
Preventing Near-Sightedness,
Parasites of the Skin,
Bathing—Best way,
Lungs & Lung Diseases,
How to Avoid them,
Clothing—what to Wear,
How much to Wear
Contagious Diseases,
How to Avoid them,
Exercise,
Care of Teeth,
After-Dinner Naps,
Headache, cause & cure,
Malarial Affections,
Croup—to Prevent.

IT TELLS HOW TO CURE

Black Eyes, Boils, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Diarrhœa, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts Whooping Cough, Worms in Children.

Price only **25** Cents. Sent by Mail, post-paid.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail ; nailed and also in the flat.

The brood-chamber is in two sections ; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand ; a slatted honey-board, and cover ; two 6-inch brood-chambers, each containing 8 frames ; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

FOR SALE !

1,000 to 5,000 Surplus Honey Crates, all painted and filled with 28 one-piece Sections, 7 to the foot. Will fit 8-frame Langstroth hive or Heddon's Langstroth hive. The best Case ever in use. Especially adapted for Tiering-Up. In lots of 5, 40 cents each. Price-List free.

J. W. BITTENBENDER,
18Atf KNOXVILLE, IOWA.

Vandervort Foundation Mill.

12 Inch, Price, $30.00.

☞ We can ship them immediately.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 *oz.* **Glass Jars** ***$5.25*** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case. Send for Catalogue.*

A. O. CRAWFORD.
Box 428. **South Weymouth, Mass.**
21D10t

Extracted Honey For Sale.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

I. X. L. HONEY - EXTRACTOR is the cheapest and best.

For 2 "L." or American frames	$6 50
For 2 frames of any size....................	8 00

22A2t W. C. R. KEMP, Orleans, Ind.

ITALIAN Queens by return mail: Tested, $1; Untested, 75 cts. Two-frame Nuclei, $1.50; 3-frame, $2. Bees by lb., 75 cts.
21Atf **GEO. STUCKMAN, Nappanee, Ind.**

Wooden Pails for Honey !

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. June 15, 1887. No. 24.

Soon will the festive bumble-bee
His little carol sing,
And polish up right carefully
His merry little sting.

Soon will the small boy seek the wood
To climb his favorite tree,
And in a happy, careless mood
Pursue that self-same bee.

Then will that blithesome bee in turn
Cause that same boy to scud
To where he can relieve the burn
By plastering with mud.

—*Selected.*

◆

A Distinguished Visitor.—The *Canadian Honey-Producer* for June is just received, and in it we find the following item of news:

> We are pleased to inform our readers that Mr. T. W. Cowan. F.G.S., F.R.M.S., editor of the *British Bee Journal*, and a prominent writer and British bee-keeper, also President of the British Bee-Keepers' Association, which has a membership of over 10,000, expects to visit Brantford this summer, where he will lecture on bee-keeping. This will be an event of interest to all, and the bee-keepers of Brantford will make effort to make Mr. Cowan's visit a pleasant one to him, to show in a small measure their appreciation of his kindness.

We had the pleasure of making Mr. Cowan's acquaintance some years ago, and we congratulate our Brantford friends upon the promise of a visit from such a genial gentleman and enthusiastic apiarist.

◆

Hiving Swarms on Starters in Frames.—Mr. S. Corneil, in the *American Apiculturist* for June, says that he lost considerable by so doing a few years ago. He adds:

> The results were that I had brood and pollen in the sections, and one-third drone-comb in the brood-nests (which consisted of only 4 frames of 160 square inches each), besides being annoyed by the swarms repeatedly swarming out.

◆

If Bees cluster outside of the hives they need ventilation or more room.

◆

The grand essentials of Happiness are—something to do, something to love, and something to hope for.

Kissing Bees.—On page 259 we criticised an item "going the rounds of the press," stating that Mrs. Thomas, a Pennsylvania lady, readily sold all her comb honey "at 50 cents per pound," even in 8 and 10 pound boxes; that she obtained a profit of $30 per colony; that her bees knew her, and often "kissed" her hand, etc. We concluded the criticism in these words:

> This *rosy* account is being extensively copied into the papers, and will, no doubt, induce many to embark in the business only to become disgusted when they find that the price of honey is less than one-fourth of that quoted above; and much of the *rosy* speech at the convention proves to be but a "delusion and a snare !"

This displeased the *Bee-Keepers' Magazine*, which enviously remarked thus in the June issue, which is just received:

> Mrs. Thomas is absolutely truthful, and a most successful apiarist. *Every word she said at that convention was the truth*, and we think Mr. Newman had better seek some other quarter into which to overturn his vial of sarcasm.

We objected to the extravagant and rosy remarks, because of their deceptiveness in inducing persons to keep bees upon the representation that they could sell their honey at 50 cents per pound, and make a profit of $30 on each colony; and then to become disgusted and injure the pursuit. We think bee-keepers generally will view it in the same light—the *Magazine* to the contrary notwithstanding !

But the next sentence caps the climax ! It reads thus:

> The great trouble, we suppose, lies in the fact that her remarks tended to show what you can do in a home market, and does not help along that great (?) convention which is being talked of.

This sentence exhibits deplorable ignorance or absurd jealousy—or both.

Her remarks do *not* "show what you can do in a home market"—for in no home market in North America can any one obtain 50 cents per pound for comb honey !

The idea is preposterous that any such remarks could affect the "great (?) convention"—either to *help* it or *hinder* it ! And neither will any such jealous allusions have any effect.

The *Bee-Keepers' Magazine* would do much better to labor for the general good of the pursuit, and encourage harmonious and united action among apiarists everywhere. In such it will always find a co-worker in the AMERICAN BEE JOURNAL.

◆

When to Put on Sections.—This question is asked quite often, and here is an answer by Mr. F. L. Dougherty from the *Indiana Farmer*:

> Sections should not go on the hives until about the time the bees are ready to enter them, but as that time depends entirely on the condition of the colony and the honey flow, there can be no set time for putting them in place. The bees will seldom commence in sections so long as there are unfilled combs below; and where colonies are not sufficiently strong to occupy the sections at the beginning of the honey flow, all surplus comb should be removed from below to induce them to enter the sections. The combs removed can be given back to them for breeding, the extra space in the brood-chamber, in the mean time, being occupied by a division-board. Too much room should not be given at first in the sections, as it is much more detrimental than many suppose. Besides, they will commence much more readily when not allowed too much space.

Ants in the Apiary.—W. S. McCrum, Etna Green, Ind., makes the following inquiries about ants in the apiary:

> I am troubled by small ants collecting over the top of the covering of my hives. How can I exterminate them? Are they any detriment? My bees all wintered well on the summer stands, and are doing well since the rains. It was very dry here during all the spring until about two weeks ago. I never heard roaring in cold weather.

Ants are no particular detriment to bees, and only weak colonies will tolerate them. Strong colonies will drive them away. To sprinkle powdered borax about their hills will drive them away very quickly.

One method of exterminating them is described by "one who knows" thus:

> When you find them on your premises, get ready tea-kettles of boiling water, plenty of it. Scald every little hole you see with a mound of little earth pellets around it; it is the home of the ant. On a sunny day these pellets are brought out of the nests to dry. When the weather is damp, or soon will be, you will see nothing but little holes in the ground. The ants are all "at home." Scald them. If your cellar is not cemented, hunt the pest there; very likely you will find lots of them. When the work here recommended has been done, clean out your closets, sugar pails, everything in the closets; rub fine salt on the shelves, lay clean yellow paper on them, and put back the dishes. In the cracks of the floor and around the surface of the closets should be placed ground red pepper. Ants will not come again for a long time.

◆

A Revised Version.—Little girl studying Sunday-school lesson (third chapter of Matthew)—"Uncle Henry, what did John wear a leathern griddle for?" Uncle Henry—"A leather griddle ! Why, what do you mean?" "Why, it says here, 'And the same John had his raiment of camel's hair and a leathern griddle about his loins, and his meat was locusts and wild honey.' Oh ! I see ! to cook his locusts on." And away she fled.

◆

Bees in a Wall of Stone.—The London *Standard* relates the following incident in the county of Surry:

> For the last 16 or 18 years a colony of bees has taken possession of a niche between the walls of the Hautboy and Fiddle public house at Ockham, near Ripley. The outer walls of the building are about 3 feet in thickness, and the bees made choice of their store-house at the very top of the building, which is three stories high.
>
> The landlord and landlady, with their daughters, resolved this year upon finding out the exact whereabouts of the colony. A diligent search was made one morning under the roof of the house, and a piece of comb was found immediately below the slates, but in such a position that it could not be reached. Mr. Smith, the landlord, then descended to the bedroom, and, with chisel and hammer, removed a number of bricks from the wall, where the nest was found.
>
> More than two feet square of the wall had to be removed, when a wonderful sight presented itself—a large mass of comb, about two feet in thickness, filled with honey, was exposed. The bees were fumigated, after which large pieces of honey were cut out, until dish after dish was filled with a total quantity of about 120 pounds. The bricks have not been put into the wall again, but a a glass door has been inserted, so that any one interested in bee culture may have an opportunity of seeing them.

◆

The Hand-Stamp Catalogue of G. W. Bercaw & Bro., Fostoria, O., is on our desk. It contains 16 pages.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Filling Sections with Store Combs.

Query 430.—When a strong colony of bees, successfully at work in surplus cases, has swarmed, and the swarm has been hived on 8 frames with half-inch starters of foundation in them, capped with the surplus cases from the parent hive, and when the brood-nest is say half full of worker-comb and brood, and when the remaining half of the brood-nest has been filled with store combs, will it prove profitable to the honey-producer to prune off these store combs, extract what honey may be in them, and use them to fill the sections with? A 24-pound case may be filled in this way. Will it pay?—M. S., Iowa.

I do not believe it would pay.—C. C. MILLER.

Those combs will do, if no brood has been reared in them.—DADANT & SON.

With my system of work it would not pay me. I could use the combs to better advantage.—H. D. CUTTING.

Why not make the bees build the comb in the sections in the first place? I get just as much comb in sections as in frames in the brood-nest.—C. W. DAYTON.

It will hardly pay. Use 5 frames, and get them filled with worker comb, using foundation in the sections.—G. M. DOOLITTLE.

I have never tried this, but those who have say it is profitable. See page 40 of "The Production of Comb Honey."—W. Z. HUTCHINSON.

Yes, if the comb is clean and bright, and you can induce the bees to rebuild with worker comb.—JAMES HEDDON.

I have often used bright store-comb in this way to great advantage. It induces the bees to go into the sections quickly. I think it will pay. —A. J. COOK.

It would not with myself. Want of knowledge as to location and floral surroundings prevents me from giving any further answer.—J. E. POND.

It would not be profitable to me to manage my bees in that way. But if I had the clean, white drone or store combs I would use them in the sections. I know it will pay, for I have tried it.—G. W. DEMAREE.

I have never tried it, but on a large scale I do not think it would pay. It would be better to hive all swarms into brood-cases not larger than will contain 800 square inches of comb, and you will not have enough drone comb built from starters in the brood-frames to be objectionable. But the contraction system requires the use of a queen-excluding honey-board. My brood-case for swarms contains 750 square inches of comb-surface, and appears to be about right in working for comb honey.—G. L. TINKER.

The querist here, no doubt, has "store comb" mixed with drone comb. If he means the latter, it will pay to cut it out and place it in the sections. "Store comb" (cells with no mathematical precision as to size) is usually constructed at the top of the frame, and not below.—J. P. H. BROWN.

Many who have pursued this plan still advocate it, and emphatically state that it pays.—THE EDITOR.

Italianizing Colonies.

Query 431.—1. At what time of the year is it best to Italianize an apiary? 2. What method would you advise a beginner to adopt?—G., Iowa.

1. When you can do it best. 2. Post up by reading the bee-books.—G. M. DOOLITTLE.

The bee-books will advise as to this. —C. C. MILLER.

Italianize in May and June. Buy a first-class queen or two, and breed from such.—DADANT & SON.

This question involves too long an answer for this department.—JAMES HEDDON.

Toward the close of the honey harvest. Circumstances would dictate the method.—C. W. DAYTON.

I prefer the fall, and would advise a beginner to buy queens and introduce them.—W. Z. HUTCHINSON.

1. All through the season. 2. The one described in all the books. Rear good Italian queens and supersede old queens by them.—A. J. COOK.

Either before the appearance of black drones, or after the swarming season is over, and all the impure drones are destroyed. Give queen-cells or laying queens. You can keep Italian drones a long while in a queenless colony.—J. P. H. BROWN.

1. Just at the close of the honey harvest. 2. It will take too much space to give an answer that would be of practical value.—J. E. POND.

I change my queens just at the close of the early honey harvest. Perhaps the simplest way is to rear some queen-cells in advance, and at the close of the honey harvest remove the black queens and give each colony a queen-cell two or three days after the queens are removed.—G. W. DEMAREE.

It would depend upon circumstances very much. You do not say how many colonies you have. This space is too small to give any practical method. Get some good work on the management of bees; read it carefully, and use good common-sense, and you will succeed.—H. D. CUTTING.

There is but one easy and sure method every time to Italianize any colony, and it may be done at any time. Take out the queens of the colonies to be superseded, and in nine days cut out all the queen-cells. Then the colony is ready to receive any queen after caging, or the drones are all killed, and there is a colony with Italian drones. A piece of comb containing just hatching-brood may be introduced. The bees will then rear their own queen. This is the best way to supersede cross colonies, unless you know how to transfer the larvæ from the queen-cells.—G. L. TINKER.

1. Italianize your bees either in the spring or autumn, as it may best suit your convenience. 2. Purchase of some reliable breeder one or more tested Italian queens, and introduce them according to the method described in your bee-book. In rearing queens, be careful to destroy all the drones from the native colonies, so that the young queens may be purely mated.—THE EDITOR.

Uniting Colonies in the Spring.

Query 432.—Is it profitable to double up colonies in the spring? If so, at what time and to what extent should it be done?—Kroy, Ills.

No, not in our opinion, unless the colonies are queenless.—DADANT & SON.

I find it profitable about the middle of June; *i. e.*, weak colonies. There is no object in doubling up strong ones.—G. M. DOOLITTLE.

It does not pay me to do it. Were I going to unite colonies in the spring, I would unite them about two weeks before the white clover harvest begins.—G. W. DEMAREE.

Not unless they are queenless. In this case they should be united as soon as we find out their condition.—A. J. COOK.

No, not as a rule. Never double up colonies that are capable of building up singly, if to do so takes all summer.—JAMES HEDDON.

I do not think it will pay. If they have a queen, crowd up to small space, and confine all the heat possible. A small colony in the spring, with proper care, will make a good colony.—H. D. CUTTING.

It depends upon the situation of the bee-keeper. I double up such colonies in the spring; but if the queens are valuable, I do not do it until I can make some disposition of them. It always pays best to have no weak colonies, if it can be avoided.—J. P. H. BROWN.

Possibly it is, especially if comb honey is to be produced. It should be done just before the main honey harvest, and to such an extent that all the combs in the united colony will be well filled with brood.—W. Z. HUTCHINSON.

I do not consider it profitable. I prefer to build up weak colonies by drawing frames from which the young bees are emerging from strong colonies.—J. E. POND.

No, it is not. But it often is profitable to strengthen weak colonies by shaking down young bees, taken from strong colonies, in front of the weak ones. I do it by placing a sheet in front of the weak colony, and then take a comb with the bees from a strong colony, being careful not to take out the queen, and shake them off on the sheet. The young bees will run into the hive, and will aid materially to build up the colony. The proceeding is always safe to the queen of the weak colony.—G. L. TINKER.

If a colony is queenless, to unite it to a weak colony with a good queen is desirable. Sometimes it is good policy to unite two weak colonies when each have queens, just before the white clover blooms, especially if the production of comb honey is the object.—THE EDITOR.

Correspondence.

This mark ☉ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Our Varied Climate, etc.

G. M. DOOLITTLE.

I do not think I have ever been so impressed with the vastness of this country of ours as I have the past spring. Especially was this forcibly brought to mind in reading page 307 of this paper, where the editor says: "The losses (in bees) have been very light, both in winter and spring, and if the weather continues favorable, a good crop of honey may be expected." Now while I do not doubt that the editor was correct regarding his locality, and the larger part of all the States west of New York, yet in this locality, Pennsylvania and the Eastern States, our loss has been quite severe, nearly equalling any we have ever sustained, and what colonies did survive are generally weak.

Any reader of the above extract, who did not take any other bee-paper than the AMERICAN BEE JOURNAL, nor had any correspondence outside of his own neighborhood, would suppose that there might be "no end" to bees and honey the present season; but taking several papers, or being in a position to receive communications from all over the United States and Canada, there is no cause for alarm along this line.

On the same day that I read the above quotation, the following was noticed in the *Bee-Keepers' Advance* for May, which I quote so the reader can see that something more than his immediate surroundings governs the matter of loss, or no loss, as well as an over or under production of honey. The *Advance* says:

"The past winter, if it can be said to be past, was the hardest on bees for many years. A continuous cold winter, with little or no opportunity for bees to get a flight for the entire winter, and the result is that fully two-thirds of the bees in this region, wintered on their summer stands, have died." And yet while this was being written, bees were booming and having a lovely time in the Western States! Why the difference? It is all answered in the words, "no opportunity to get a flight," and "frequent flights" during the winter.

As I read through the reports on wintering bees from Illinois, Indiana, Ohio, Michigan, and other States of the West, saying "bees had a splendid flight to-day," or "a day or two ago" along in January, February and March, I said that bees in those States will winter well; and when I got reports from States here at the East, saying "no flight for five months," it was easy to predict the result.

The question regarding the wintering of bees is not in diarrhea or no diarrhea, but in frequent flights or no flight; or at least so it seemed to me more than ten years ago; and with every succeeding winter that idea is strengthened. It now looks as though we of the North have only one desideratum, and that is cellar-wintering. With a cellar of the proper temperature, bees can endure six months of confinement better than they can four months out-doors, I care not how well packed. My bees were confined in the cellar for 181 days, yet all came out in good condition except one which starved; while my loss among those wintered on the summer stands, which were confined 151 days, was fully 25 per cent.

LOCALITY AND POPULOUSNESS OF COLONIES.

While on this subject of diversity of country, I wish to speak regarding something which causes many words and often hard feelings. It is about the ordering of bees and queens from a cold and unpromising place, to be sent early in the season to a warmer and more genial locality, the party ordering making no allowance for the difference of latitude. A party in any of the Southern States should not expect a colony of bees shipped from New York or Michigan during the month of May, to be equal in brood and bees to one bought in his own locality; yet there are apparently very many who think this should be the case. It seems to me that common-sense should teach any one better. Only a few days ago I got a letter from a Southern party, using very bitter words regarding one of our most respected apiarists, claiming that he ordered full colonies and received only what ought to be termed nuclei in return. A little correspondence regarding the matter showed that the apiarist had sent out all of his strongest colonies and kept all the weaklings to build up for his own use, yet was being censured for being more than generous.

If large numbers of bees are wanted early in the season, order of parties in a more Southern latitude. If improvement of stock is what is wanted, order of parties North, expecting nothing great unless you are willing to wait until July.

MISTAKES IN ORDERING QUEENS.

Now about ordering queens: Many seem to suppose that where a person has a yearly advertisement in a paper quoting prices for queens, that queens can be had at any time of the year. It is nothing uncommon for such a queen-breeder to get an order while the snow is on the ground, saying, "Enclosed find $1 for an untested queen, which you will please send by return mail, as I want her immediately." Such persons do not stop to think that they could not possibly get untested queens (no not even the queen-cells which would prove of any value) thus early in the season. Then when the party of whom the queens are ordered, writes a kind letter explaining the matter, he will often get curses, the letter winding up by saying, "Send my money back at once;" or, "it is early queens I want."

How much better it would have been for all concerned, if such parties would stop and reason a little, which would of necessity lead them to know that what they could not do, the breeder could not; and the result would be, if early queens must be had, they should send to the South for them. Then again, the originator of the "dollar queen" business keeps, or has kept, as a standing advertisement in his paper for years, that no such queens will probably be sent out before July; yet hundreds of bee-keepers seem to expect "dollar queens" by return mail during the month of May!

But those ordering queens are not wholly to blame for this state of affairs. In the May issue of a certain bee-paper I saw it stated by a noted queen-breeder, that after the first of May he would be able to send out 100 untested queens a week, his facilities for sending out increasing with each week. As this breeder lives in about my latitude, I wondered how this could be done; but now the matter is plain, as the June number of that paper has arrived, and in it I find that owing to unfavorable weather and circumstances, expectations have not been realized, but it is hoped that he will soon be able to fill all orders!

Brethren, on both sides of the house, "these things ought not so to be." We cannot afford to have our dispositions soured and our lives made miserable by misrepresentation or unreasonableness. To do away with this state of affairs, would it not be well for the purchaser to drop a postal card to the breeder, asking him to fix a date when he could fill an order, then if the agreement was not lived up to, the breeder could be avoided in the future? A standing advertisement is no certain criterion to follow.

Borodino,☉ N. Y.

[Our remarks about the losses in winter and spring were intended to apply in general—in the broad expanse of territory of North America.

We well-knew that in several localities (notably in the Eastern States) losses had been sustained in bees, and that the weather had been severe, but *in general* the winter was not rigorous, the spring was mild, and consequently the losses of bees were light, when the whole country was encompassed.

The suggestions of Brother Doolittle about the unreasonableness of expecting queens in the North to be shipped in May, is just to the point, and timely as well!

Advertisers should always state the probable time, after which orders could be filled. Nothing can be made by being unjust or unreasonable in our thoughts, feelings, or business transactions.—Ed.]

The Natural History of Bees.

A correspondent has sent us a copy of the *Literary Magazine* published in England in October, 1807—just 80 years ago. It contains an editorial article with the above heading, which we copy entire as requested by our correspondent, knowing that it will be read with interest, and show to the apiarists of to-day that much more was known a century ago about bees than many now are willing to admit. Here is the article entire:

The skill and dexterity of the honey-bees, displayed in the construction of their combs or nests, have at all times called forth the admiration of mankind. They are composed of cells regularly applied to each other's sides. These cells are uniform hexagons or six-sided figures. In a bee-hive, every part is arranged with such symmetry, and so finely finished, that, if limited to the same materials, the most expert workman would find himself unqualified to construct a similar habitation, or rather a similar city.

In the formation of their combs, bees seem to resolve a problem which would be not a little puzzling to some geometers, namely, a quantity of wax being given, to make of it equal and similar cells of a determined capacity, but of the largest size in proportion to the matter employed, and disposed in such a manner as to occupy in the hive the least possible space. Every part of this problem is completely executed by the bees. By applying hexagonal cells to each other's sides, no void spaces are left between them; and, though the same end might be accomplished by other figures, yet they would necessarily require a greater quantity of wax. Besides, hexagonal cells are better fitted to receive the cylindrical bodies of these insects. A comb consists of two strata cells applied to each other's ends. This arrangement both saves room in the hive, and gives a double entry into the cells of which the comb is composed. As a further saving of wax, and preventing void spaces, the bases of the cells in one stratum of a comb serve for bases to the opposite stratum.

In a word, the more minutely the construction of these cells are examined, the more will the admiration of the observer be excited. The walls of the cells are so extremely thin, that their mouths would be in danger of suffering by the frequent entering and issuing of the bees. To prevent this disaster, they make a kind of ring around the margin of each cell, and this ring is three or four times thicker than the walls.

It is difficult to perceive, even with the assistance of glass hives, the manner in which bees operate when constructing their cells. They are so eager to afford mutual assistance, and, for this purpose, so many of them crowd together, and are perpetnally succeeding each other, that their individual operations can seldom be distinctly observed. It has, however, been plainly discovered, that their two teeth are the only instruments they employ in modeling aad polishing the wax. With a little patience and attention, we perceive cells just begun; we likewise remark tbe quickness with which a bee moves its teeth against a small portion of the cell. This portion the animal, by repeated strokes on each side, smooths, renders compact, and reduces to a proper thinness of consistence.

While some of the bees are lengthening their hexagonal tubes, others are laying the foundation of new ones. In certain circumstances, when extremely hurried, they do not complete their new cells, but leave them imperfect till they have begun a number sufficient for their present exigencies. When a bee puts its head a little way into a cell, we easily perceive it scraping the walls with the points of its teeth, in order to detach such useless and irregular fragments as may have been left in the work. Of such fragments the bee forms a ball about the size of a pin-head, comes out of the cell, and carries this wax to another part of the work where it is needed. It no sooner leaves the cell than it is succeeded by another bee which performs the same office, and in this manner the work is successfully carried on till the cell is completely polished.

The cells of bees are designed for different purposes. Some of them are employed for the accumulation and preservation of honey. In others the female deposits her eggs, and from these eggs worms are hatched, which remain in the cells until their final transformation into flies. The drones or males are larger than the common or working bees; and the queen, or mother of the colony, is much larger than either. A cell destined for the lodgment of a male or female worm must, therefore, be considerably larger than the cells of the smaller working bees.

The number of cells destined for the reception of the working bees far exceeds those in which the males are lodged. The honey-cells are always made deeper and more capacious than the others. When the honey collected is so abundant that the vessels cannot contain it, the bees lengthen, and of course deepen the honey-cells.

Their mode of working, and the disposition and division of their labor, when put into an empty hive, do much honor to the sagacity of bees. They immediately begin to lay the foundations of their combs, which they execute with surprising quickness and alacrity. Soon after they begin to construct one comb, they divided into two or three companies, each of which, in different parts of the hive, is occupied with the same operations. By this division of labor, a greater number of bees have an opportunity of being employed at the same time, and, consequently, the common work is sooner finished. The combs are generally arranged in a direction parallel to each other. An interval or street between the combs is always left, that the bees may have a free passage, and an easy communication with the different combs in the hive. These streets are just wide enough to allow two bees to pass one another. Beside these parallel streets, to shorten their journey when working, they have several round cross-passages, which are always covered.

Hitherto we have chiefly taken notice of the manner in which bees construct and polish their cells without treating of the materials they employ. We have not marked the difference between the crude matter collected from flowers and the true wax. Everybody knows that bees carry into their hives, by means of their hind thighs, great quantities of the farina or dust of flowers. After many experiments made by Reaumur, with a view to discover whether this dust contained real wax, he was obliged to acknowledge that he could never find that wax formed any part its composition. He at length discovered that wax was not a substance produced by the mixture of farina with any glutinous substance, nor by trituration, nor any mechanical operation. By long and attentive observation, he found that the bees acturally eat the farina which they so industriously collect; and that this farina, by an animal process, is converted into wax. This digestive process, which is necessary to the formation of wax, is carried on in the second stomach, and perhaps in the intestines of bees. After knowing the place where this operation is performed, chymists will probably allow that it is equally difficult to make real wax with the farina of flowers, as to make chyle with animal or vegetable substances, a work which is daily executed by our own stomach and intestines, and by those of other animals.

Reaumur likewise discovered that all the cells in a hive were not destined for the reception of honey, and for depositing the eggs of the female, but that some of them were employed as receptacles for the farina of flowers, a species of food that bees find necessary for the formation of wax, which is the great basis and raw material of all their curious operations. When a bee comes to the hive with its thighs filled with farina, it is often met near the entrance by some of its companions, who first take off the load, and then devour the provisions so kindly brought to them. But when none of the bees employed in the hive are hungry for this species of food, the carriers of the farina deposit their loads in cells prepared for that purpose. To these cells the bees resort, when the weather is so bad that they cannot venture to go to the fields in quest of fresh provisions. The carrying bees, however, commonly enter the hive loaded with farina. They walk along the combs, beating and making a noise with their wings. By these movements they seem to announce their arrival to their companions. No sooner has a loaded bee made these movements than three or four of those within leave their work, come up to it, and first take off its load, and then eat the materials it has brought.

As a further evidence that the bees actually eat the farina of flowers, when the stomach and intestines are laid open, they are often found to be filled with this dust, the grains of which, when examined by the microscope, have the exact figure, color and consistence of farina taken from the antheræ of particular flowers. After the farina is digested and converted into wax, the bees possess the power of bringing it from their stomachs to their mouths.

The instrument they employ in furnishing materials for constructing their waxen cells is their tongue. This tongue is situated below the two teeth or fangs. When at work the tongue may be seen by the assistance of a lens and a glass-hive. It is then in perpetual motion, and its motions are extremely rapid. Its figure continually varies. Sometimes it is more sharp, at others it is flatter, and sometimes it is more or less concave, and partly covered with a moist paste or wax. By the different movements of its tongue the bee continues to supply fresh wax to the two teeth, which are employed in raising and fashioning the walls of its cells, till they have acquired a sufficient height. As soon as the moist paste or wax dries, which it does almost instantaneously, it then assumes all the appearances and qualities of common wax. There is a still stronger proof that wax is the result of an animal process. When bees are removed into a new hive, and closely confined from the morning to the evening, if the hive chances to please them, in the course of this day several waxen cells will be formed, without the possibility of a single bee having had access to the fields.

Besides, the rude materials, or the farina of plants carried into the hive, are of various colors. The farina of some plants employed by the bees is whitish; in others it is of a fine yellow color; in others it is almost entirely red; and in others it is green. The combs constructed with these differently colored materials are, however, uniformly of the same color. Every comb, especially when it is newly made, is of a pure white color, which is more or less tarnished by age, or by other accidental circumstances. To bleach wax, therefore, requires only the art of extracting such foreign bodies as may have insinuated themselves into its substance, and changed its original color.

Bees, from the nature of their constitution, require a warm habitation. They are likewise extremely solicitous to prevent insects of any kind from getting admittance into their hives. To accomplish both these purposes, when they take possession of a new hive, they carefully examine every part of it, and if they discover any small holes or clincks, they immediately paste them firmly up with a resinous substance which differs considerably from wax. This substance was not unknown to the ancients. Pliny mentions it under the name of propolis or bee-glue. Bees use the propolis for rendering their hives more close and perfect in preference to wax, because the former is more durable, and more powerfully resists the vicissitudes of weather than the latter. This glue is not, like wax, procured by an animal process. The bees collect it from different trees, as the poplars, the birches, and the willows. It is a complete production of Nature, and requires no addition or manufacture from the animals by which it is employed. After a bee has procured a quantity sufficient to fill the cavities in its two hind thighs, it repairs to the hive. Two of its companions instantly draw out the propolis, and apply it to fill up such chinks, holes, or other deficiencies, as they find in their habitation.

But this is not the only use to which bees apply the propolis. They are extremely solicitous to remove such insects or foreign bodies as happen to get admission into the hive. When so light as not to exceed their powers, they first kill the insect with their stings, and then drag it out with their teeth. But it sometimes happens that an ill-fated snail creeps into the hive. It is no sooner perceived than it is attacked on all sides and stung to death. But how are the bees to carry out a burden of such weight? This labor they know would be in vain. They are perhaps apprehensive that a body so large would diffuse, in the course of its putrefaction, a disagreeable or noxious odor through the hive.

To prevent such hurtful consequences, immediately after the animal's death they embalm it by covering every part of its body with propolis, through which no effluvia can escape. When a snail with a shell gets entrance, to dispose of it gives much less trouble and expense to the bees. As soon as this kind of snail receives the first wound from a sting, it naturally retires within its shell. In this case the bees, instead of pasting it all over with propolis, content themselves with gluing all around the margin of the shell, which is sufficient to render the animal for ever immovably fixed.

But propolis and the materials for making wax, are not the only substances these industrious animals have to collect. As formerly remarked, beside the whole winter, there are many days in summer in which the bees are prevented by the weather from going abroad in quest of provisions. They are, therefore under the necessity of collecting and amassing in cells destined for that purpose, large quantities of honey. This sweet and balsamic liquor they extract by means of their proboscis or trunk, from the nectariferous glands or flowers. The trunk of a bee is a kind of rough cartilaginous tongue. After collecting a few small drops of honey, the animal with its proboscis conveys them to its mouth and swallows them. From the œsophagus gullet it passes into the first stomach, which is more or less swelled in proportion to the quantity of honey it contains. When empty, it has the appearance of a fine white thread; but when filled with honey, it assumes the figure of an oblong bladder, the membrane of which is so thin and transparent, that it allows the color of the liquor it contains to be distinctly seen. This bladder is well known to children who live in the country. They cruelly amuse themselves with catching bees, and tearing them asunder, in order to suck the honey.

A single flower furnishes but a small quantity of honey. The bees are, therefore, obliged to fly from one to another till they fill their first stomachs. When they have accomplished this purpose, they return directly to the hive, and disgorge in a cell the whole honey they have collected. It not unfrequently happens, however, that, when on its way to the hive, it is accosted by a hungry companion. How the one can communicate its necessity to the other, it is perhaps impossible to discover. But the fact is certain that, when two bees meet in this situation, they mutually stop, and the one whose stomach is full of honey extends its trunk, opens its mouth, which lies a little beyond the teeth, and like ruminating animals, forces up the honey into that cavity. The hungry bee knows how to take advantage of this hospitable invitation. With the point of its trunk it sucks the honey from the other's mouth. When not stopped on the road, the bee proceeds to the hive, and in the same manner offers its honey to those who are at work, as if it meant to prevent the necessity of quitting their labor in order to go in quest of food. In bad weather, the bees feed upon the honey laid up in open cells; but they never touch these reservoirs when their companions are enabled to supply them with fresh honey from the fields. But the mouths of those cells which are destined for preserving honey during winter, they always cover with a lid or thin plate of wax.

We shall now give some account of the ingenious Mr. Debraw's discoveries concerning the sex of bees, and the manner in which their species is multiplied. It was almost universally believed, both by ancients and moderns, that bees, like other animals, propagate by an actual intercourse of the male and female, though it never could be perceived by the most attentive observers. Pliny remarks, that *apium coitus visus est nunquam;* and even the indefatigable Reaumur, notwithstanding the many minute researches and experiments he made concerning every part of the economy of bees, and though he represents the mother, or queen-bee, as a perfect Messalina, could never detect an actual intercourse. From this singular circumstance, Miraldi, in his observations upon bees, conjectured that the eggs of bees, like those of fishes, were impregnated after they were deposited in the cells by the mother. He was further confirmed in this opinion by uniformly observing that a whitish liquid substance surrounded each egg which turned out to be fertile; but that those eggs round which no substance was to be found, were always barren. The working bees, or those which collect from flowers the materials of wax, have generally been considered as belonging to neither sex. But Mr. Schirach, a German naturalist, in his "History of the Queen of the Bees," maintains that all the common bees are females in a disguised or barren state; that the organs which distinguish the sex, and particularly the ovaria, are either obliterated, or, on account of their minuteness, have not hitherto been discovered; that, in the early period of its existence, every one of these bees is capable of becoming a queen-bee, if the community choose to nurse it in a certain manner, and to raise it to that distinguished rank; and that the queen-bee lays only two kinds of eggs, namely, those that are to produce drones or males, and those from which the working bees are to proceed.

The conjecture of Maraldi concerning the impregnation of the eggs after they are deposited in the cells, as well as the observations of Mr. Schirach concerning the sex of the working bees, have been completely verified by the experiments of Mr. Debraw. Both Maraldi and Reaumur had long ago discovered that in every hive, beside the large drones, there are males or drones as small as the working bees. By means of glass-hives, Mr. Debraw observed that the queen-bee begins to deposit her eggs in the cells on the fourth or fifth day after the bees begin to work. On the first or second day after the eggs are placed in the cells, he perceived several bees sinking the posterior parts of their bodies into each cell, where they continued but a short time. After they had retired, he saw plainly with the naked eye a small quantity of whitish liquid left in the bottom of each cell that contained an egg. The next day he found that this liquid was absorbed into the egg, which, on the fourth day, is hatched. When the worms escape from the eggs, they are fed for eight or ten days with honey by the working bees. After that period they shut up the mouths of the cells, where the worms continue inclosed for ten days more, during which time they undergo their different transformations.

"I immersed," says Mr. Debraw, "all the bees in water; and, when they appeared to be in a senseless state, I gently pressed every one of them between my fingers, in order to distinguish those armed with stings from those that had none, which last I might suspect to be males. Of these I found 67, exactly of the size of common bees, yielding a little whitish liquor on being pressed between the fingers. I killed every one, and replaced the colony in a glass hive, where they immediately applied again to the work of making cells; and on the fourth or fifth day, very early in the morning, I had the pleasure to see the queen-bee depositing her eggs in those cells, which she did by placing the posterior part of her body in each of them. I continued to watch most part of the ensuing days, but could discover nothing of what I had seen before. The eggs, after the fourth day, instead of changing in the manner of caterpillars, were found in the same state they were in the first day." The next day about noon, the whole colony forsook the hive, probably because the animals perceived that, without the assistance of males, they were unqualified to multiply their species. To show the necessity of the eggs being fecundated by the male influence, Mr. Debraw relates an experiment still more decisive.

"I took," says he, "the brood-comb which, as I observed before, had not been impregnated; I divided it into two parts; one I placed under a glass bell, No. 1, with honey comb for the bees' food; I took care to leave a queen, but no drones, among the common bees I confined in it. The other piece of brood-comb I placed under another glass bell, No. 2, with a few drones, a queen, and a number of common bees proportioned to the size of the glass. The result was, that in the glass No. 1 no impregnation happened; the eggs remained in the same state they were in when put into the glass; and, upon giving the bees their liberty on the seventh day, they all flew away, as was found to be the case in the former experiment; whereas in the glass No. 2, I saw the very day after the bees had been put under it, the impregnation of the eggs by the drones in every cell containing eggs; the bees did not leave their hive on receiving their liberty; and in the course of 20 days, every egg underwent all the above mentioned necessary changes, and formed a pretty numerous young colony in which I was not a little startled to find *two* queens."

The appearance of a new queen in a hive where there was no large or royal cell, made Mr. Debraw conjecture that the bees are capable, by some particular means, of transforming a common subject into a queen. To ascertain the truth of this conjecture, he provided himself with four glass hives, into each of which he put a piece of brood-comb taken from an old hive. These pieces of brood-comb contained eggs, worms and nymphs. In each hive he confined a sufficient number of common bees, and some drones or males, but took care that there should be no queen.

"The bees," Mr. Debraw remarks, "finding themselves without a queen, made a strange buzzing noise, which lasted nearly two days, at the end of which they settled, and betook themselves to work. On the fourth day I perceived in each hive the beginning of a royal cell, *a certain indication that one of the inclosed worms would soon be converted into a queen.* The construction of the royal cell being nearly accomplished, I ventured to leave an opening for the bees to get out, and found that they returned as regularly as they do in common hives, and showed no inclination to leave their habitation. But, to be brief, at the end of 20 days I observed four young queens among the new progeny."

To these experiments of Mr. Debraw it was objected that the queen-bee, besides the eggs which she deposits in the royal cells, might likewise have laid royal or female eggs in the common cells; and that the pieces of brood-comb so successfully employed in his experiments for the production of a queen, had always happened to contain one of these royal eggs, or rather one of the worms proceeding from them. But this objection was afterwards removed by many other accurate experiments, the results of which were uniformly the same; and the objectors to Mr. Debraw's discovery candidly admit that, when the community stands in need of a queen, the working bees possess the power of raising a common subject to the throne; and that every worm of the hive is capable, under a certain course of management, of becoming the mother of a numerous progeny. This metamorphosis seems to be chiefly accomplished by a peculiar nourishment carefully administered to the worm by the working bees, by which, and perhaps by other unknown means, the female organs, the germs of which previously existed in the embryo, are expanded, and all those differences in form and size, that so remarkably distinguish the queen from the working-bees are produced.

It is always a fortunate circumstance when discoveries, which at first seem calculated solely to gratify curiosity, are capable of being turned to the advantage of society. Mr. Debraw, accordingly, has not failed to point out the advantages that may be derived from his researches into the economy and nature of bees. By his discovery we are taught an easy mode of multiplying, without end, swarms or new colonies of these useful insects.

The practice of this new art, Mr. Schirach informs us, has already extended itself through Upper Lusatia, the Palatinate, Bohemia, Bavaria, Silesia and Poland. In some of these countries it has excited the attention, and acquired the patronage of government. The late Empress of Russia, who never lost sight of a single article by which the industry, and, of course, the happiness of her subjects could be augmented, sent a proper person to Klein-Bautzen, to be instructed in this new, important art.

For the American Bee Journal.

Legislation on Priority of Location.

WM. F. CLARKE.

On page 332, Dr. Miller claims that I misunderstood his position, and complains that I still cling to my previous misunderstanding of it in the face and teeth of his correction. I cannot admit that I misunderstood the worthy Doctor, especially as so many interpreted him in the same way I did. Is it not possible for a man to misunderstand himself? So Burns thought, evidently, when he penned the lines:

> "O wad some power the giftie gie us
> To see oursels as ithers see us,
> It wad frae mony a blunder free us,
> And foolish notion."

The Doctor says, he "never desired legislation in favor of priority of location, nor advocated it." Then, what in the name of common-sense was he driving at? Will he please tell us?

It cannot surely be that he wished a bee-keeper to be able to buy a right to a certain area as a honey-field, and then, armed with his legal document, to evict all others. I can understand how being a first-comer into a locality should give a bee-keeper a right of pre-emption on which he might secure a title to the honey-yield of a prescribed area, but I cannot imagine any other way in which such a right could be claimed or upheld.

The Doctor, in a brief letter to the *Canadian Bee Journal*, refers me to his first utterance on the subject as that on which he is willing to be judged. It will be found on page 781 of *Gleanings* for Oct. 1, 1886. I quote as follows:

"It is of practical importance, if my position is correct, to be able to invest time and money in this business, and have some feeling of security that there is some permanence about it; that no mere whim of some envious neighbor may drive me out of the business next year; that after making investments in buildings, fixtures, and perhaps special pasturage, I may feel secure that no one else may be able, by overstocking, to drive me from my field. In plain words, I take the radical ground that legislation is needed, whereby, in some way, under proper restrictions and limitations, I may have the control of a certain number of acres or square miles as a range for my bees."

Who is this "envious neighbor" of whose intrusion the Doctor is afraid? Is he not, manifestly, a new comer whom the Doctor would like to have legal power to exclude? I fail to see who else it can be, or on what ground except that he was a prior occupant, the Doctor could base the right to shut him out.

A question of fact has been raised. Has Dr. Miller advocated "priority of location," or has he not? I have asserted that he has, and furnished ample proof of the assertion, the Doctor himself being the chief witness on my side. He pleads "Not guilty." I cannot withdraw "the indictment." There is nothing for it, but to refer the case to a jury. I am content the jury should be the whole body of intelligent bee-keepers, or any twelve disinterested and uncommitted members of that body. To their verdict, I leave the matter.

Guelph, Ont.

For the American Bee Journal.

Improvements in Bee-Hives.

J. W. TEFFT.

Any one who noted the character of bee-hives that have been originated during the past 40 years, must have seen the prevalence of a different spirit from that which pervaded the community in years before. Individuality has had a chance, and each successive new hive has possessed a character of its own, instead of being a slightly modified reproduction of some hive that was built in early years. Bee-keepers had no views—mechanical or architectural—to build hives in harmony with the bees. The sole idea was to have a carpenter to make walls in box-shape, on varying plans, clap on a roof, run sticks crosswise to hold the combs up until full, when the bees were brimstoned in order to get the honey. For the past 40 years no hive of any pretensions was devoid of a so-called movable frame.

To this slowly succeeded the present era of independence,and the result is the breaking up of that uniformity of honey producing which promised to make bee-keeping as monotonous as the old box-hive. This breaking away from the slavery of custom and of set fashion in the matter of hives and frames, has been productive of splendid results, but it has at the same time brought with it some evils. There are few things more to be despised than that servility of spirit which makes people do things different from things done by their neighbors, whether the example is right or wrong; but it is no more to be commended that the beaten path should be varying.

To do things in a way different from that followed by other people, only because the way is different, seems rather ridiculous than otherwise, and is usually rewarded with the laughter which it deserves.

This independence in bee-hive construction is to be continued this year, and the effect of the hives now "building," and about to be started, will add yet more to American character, as a country of independent thinkers. A comparison with other countries will show that in the matter of bee-hives we are well in the lead, and that we can in this respect well lay claim to the title of "independent bee-keepers." This feature is not confined to any one neighborhood, nor to any one State, and even the speculative supply manufacturers who deal in low-priced bee-hives find their sales are hastened by the addition of one or two artistic details in architecture of slotted top-bars, invertible sectional bee-hives, and reversible interchangeable-frames. The popular AMERICAN BEE JOURNAL is advancing education in this respect, as in many others, and America may congratulate herself that she is in the front rank of advance.

There is no reason why bee-keepers should not move ahead with the best of improvements in bee-hives. A little strong infusion of Yankee spirit of enthusiastic rivalry—a little more American pride—a little more effort to secure something to be proud of (and no country has more natural advantages), and we shall see bee-keeping traveling forward as she never moved before.

Collamer, N. Y.

Read at the Maine Convention.

How to Make Bee-Keeping Profitable.

ISAAC HUTCHINS.

I believe that bees winter better and build up quicker in the spring where they are well packed with chaff or dry sawdust on the summer stands, than they do when wintered in a cellar. Spring dwindling, I believe in most cases, is a result of cellar wintering.

Those who winter bees in a cellar use a single-walled hive, and when they put them out in the spring, the sun will warm them so that many bees will fly out when the air is so cold that they become chilled and never return. If we have a few days of warm weather, and they have all the brood that they can care for, one cold night will drive the bees into a cluster, and leave the brood to die.

The bee-hive needs protection from the rays of the sun, and the cold storms and winds of early spring, as much as it does in the winter months when there is no brood to chill. We should encourage breeding early in the spring, remembering that it is the early bees that store the surplus honey.

As soon as the weather will admit in the spring, examine each colony to ascertain if they are in need of aid. No. 1 may have lost its queen; No. 2 may be short of stores; No. 3 may be weak in numbers, and need a frame of ripe brood. I should be very sorry to have a colony die for want of food or care, after they had survived a cold winter.

If bees are well wintered and well cared for in the spring, they will be ready to divide or swarm before the white clover honey harvest. If to be divided, it should be done at least ten days before the honey flow commences, and the honey sections should be put on soon after, so that the bees may get settled down to business in season to give good returns. In dividing, leave each colony as strong as it will do, and not induce swarming.

To make bee-keeping profitable, we must have a love for the business, and if we do not love the business-end of the bee, we should learn not to fear it. We must become acquainted with the natural laws governing the honey-bees. A "Manual of the Apiary" will be found in the library of every progressive bee-keeper. We have made great improvements in bee-culture within the last decade, and many more are needed and are continually being made, and unless we subscribe for and read a good bee-periodical we shall be left behind. I frequently find a single article in my bee-paper that is worth more to me than the price of a year's subscription.

Nothing is better calculated to mislead us than the idea that bee-culture has acquired perfection, and that we know it all. Americans may lead the world in this art, but it is in its infancy, and who can tell what the coming bee will be like? We should keep a register of the apiary, so that at a mere glance we can ascertain the age, race, strain and quality of the queen of any colony; determine the character of her progeny; the amount of honey stored, and the increase.

By having a history of each colony before us, we can avoid many mistakes that will occur, if we depend upon a treacherous memory. We should have every thing needed in the apiary on hand, and ready for use at the commencement of the season, and we should give our bees all needful care, and supply their wants at the proper time. There should be no putting off until to-morrow what should be done to-day.

Dexter,⊙ Maine.

For the American Bee Journal.

Pollen in the Sections.

W. Z. HUTCHINSON.

I am in receipt of a card from F. A. Gemmill, asking the following question: "What remedy would you suggest to keep pollen out of the sections when hiving swarms on empty frames? That is the stickler in this locality—Ont., Canada."

I think Mr. G. could not have found one who knows less upon this subject than does myself. Not more than two or three of my sections in one thousand have contained pollen or bee-bread. It is possible that locality may account for its absence; and, again, it is possible that queen-excluding honey-boards also exclude the pollen, as where the brood goes, there also appears the pollen. Before I used queen-excluders I was troubled with the queen going into the sections, and *then* sections adjoining those containing brood were almost always filled with bee-bread.

I presume that Mr. Gemmill's idea is, that the bees having no combs in the brood apartment would store pollen in the combs furnished them in the supers. I am aware that this would be a natural inference, and I will admit that I feared there might be trouble when I began using the new Heddon hive, but the result only proved the excellency of that old advice, to "never trouble trouble, till trouble troubles you;" for no bee-bread made its appearance in the supers when hiving swarms with starters only in the brood-frames.

Whenever I do find pollenized sections, they are over a colony that has *not* sent out a *swarm*, and has no queen-excluding board in use; after a swarm has issued from a parent colony it seems to devote its whole energy for a few days to the gathering of *honey*, not pollen, and but little brood is reared at first while the queen is recuperating her exhausted energies. By the time that brood is being reared. comb has been built, and there is room for the storing of pollen.

This is how I have reasoned upon the subject, but, if others who have adopted my method are troubled by newly-hived swarms storing pollen in sections, I see no explanation except that of locality. Still, the fact remains that I have never found a pollenized section over a newly-hived swarm when managed as I advise, while I have occasionally found one over a colony that has not swarmed; hence, I reason that using starters only in the brood-nest when hiving swarms ought not to lead to the storing of pollen in sections.

Rogersville,♂ Mich.

For the American Bee Journal.

Hints to Beginners in Bee-keeping.

JOHN SHALLCROSS.

The use of comb foundation, besides being an encouraging invitation to the bees to commence immediate work, is a great saving of honey. It is estimated that at least 20 pounds of honey are consumed in elaborating one pound of wax.

Some have supposed that wax was gathered by the bees from plants, or manufactured by them from pollen; but such is not the case. It is the natural, unctious secretion of the bee, which exudes from the wax pockets between the chitinous folds of the under part of the body, and is produced most abundantly during the honey harvest. When most needed the bees seem to have the faculty of producing it as required. If supplied in the shape of comb or foundation, they give less attention to its production and more to the gathering of stores.

These are facts of which the experience of the beginner in bee-keeping will soon enable him to take advantage, and thus he will learn to make the most profitable use of his bees.

Occasionally the section-boxes will need inspection. When full, and the cells nicely capped, they must be at once removed and replaced with empty sections. If allowed to remain in the hive, the bees will mar the purity of the white wax by constantly traveling over it.

This process of obtaining honey will exhibit the advantage of the movable-frame system. At all times the apiarist has access to every comb, and can remove or exchange frames, and direct in what part of the hive the bees shall store honey, and of the thickness they shall build their combs.

With the non-progressive, old-fashioned box-hive, the bee-keeper must helpessly wait until he shall destroy his colony over the sulphur pit, to see if there is left for him even a moderate quantity of honey of inferior quality, and in an unmarketable condition.

Philadelphia,⊸ Pa.

For the American Bee Journal.

May and June Management.

H. GRIFFIN.

I say May, because the season is a month late; I am doing the things that I ought to have done a month ago.

A beginner in bee-keeping having say 10 colonies, should take the 6 strongest for comb honey, and the other 4 for extracted. Having the sections and division-boards, from one of the colonies worked for comb honey take all the frames with no brood, shaking all the bees off, and if they are not very strong in bees, take out one or two of the frames that had brood; put in the board, and fill the space bee-tight between the board and the side of the hive with something. Close the entrance on the sides; and put on the sections.

Now, having some combs, take the ones with brood and put them in the bottom of one of the hives worked for extracted honey, lifting out the frames in the place of them, and putting all the frames having no brood in the top, and so on with all the hives, filling out the rest of the top with full sheets of foundation. When the strongest of these colonies have pretty nearly all of the tops of their hives full, exchange combs with the ones not being so nearly complete—not extracting any until all are full.

Kilgore,♂ Ky.

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One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 9-11.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Paradise for Bee-Hunters.—A. F. Robson, Italy,♀ N. Y., writes:

I have read with interest the article on page 361, quoted from the New York *Medical Journal* of May 14, entitled "The Black Bees of Tasmania and their Medicinal Honey." That article predicts that honey is destined to play a great part in the treatment of certain diseases, etc. It seems to me that, considering the high authority of this article, it will retire (at least temporarily) the fabulous stories of Western bee-trees, California honey-caves, etc., of which we have heard so much; and that Tasmania will, in the future, be a "Mecca" towards which all bee-hunters will travel.

Perfectly Quiet in Winter.—P. L. Gibson, Muscatine,○→ Iowa, says:

My experience and observation in wintering bees "out-doors" is, that in zero weather, or colder, bees are perfectly quiet until disturbed.

Bountiful Rains and Flattering Prospects.—Geo. E. Hilton, Fremont, ←○ Mich., on June 4, 1887, says:

We have had bountiful rains, and honey is coming in splendidly, with very flattering prospects for the season. My bees are in the best possible condition, and are storing in the surplus cases.

Stores over the Bees in Winter.—M. L. Barney & Bro., Hartford,○→ Wis., on June 6, 1887, write:

Our colonies are in good condition, increasing finely in bees, and some are swarming naturally. We use the Badger State hive, and winter our bees with the supers on. We do not believe in feeding syrup for stimulating colonies in the spring. Our aim is to have colonies go into winter quarters with queens not more than one year old, with an abundance of good honey, and good ventilation. Let the bees use their own economy in rearing brood, and do not put combs in between sheets of brood, as we used to do, and never make up colonies until about the beginning of white clover bloom. We do not extract until about July 10, when we extract only part of the honey in the supers. As the season comes to a close, we have every frame in the supers full of sealed honey; the frames being deep, the bees always have plenty of honey directly over the cluster, where they can get it at all times. The honey never becomes sour when over the bees, on account of the heat from the colony. In the flat frame, it will be noticed that the honey in the centre of the hive will be gone, while there will be sufficient honey in the ends of the frames, the honey being so far from the cluster that it is very often sour; while if directly over the bees it is sweet and good. If we had an apiary in a mild climate, we would prefer a shallow frame, but in Wisconsin no one could induce us to use one, judging by past and present experience.

Fruit and Bees.—Z. A. Clark, Arkadelphia,♀ Ark., on June 6, 1887, writes thus:

The time expires to-day for all bee-keepers to leave town and take their bees with them. The City Council is in session now. I can prove by a majority of my neighbors that bees are not a nuisance, and are not destructive to fruit. We have made some close tests to demonstrate the destruction of fruit by bees. What the result will be we shall soon find out by the action of the City Council.

[In our next issue we shall publish a report of some more experiments made by Mr. N. W. McLain, reported officially to the United States Entomologist, and just published among the "Reports of observations and experiments in the practical work of the Division made under the direction of the entomologist." This will throw some further light on the senseless war of the fruit-culturists against the bees.—Ed.]

Inverting Brood-Frames.—15—H. S. Ball, (43), of Granby, Quebec, on June 3, 1887, says:

I have found by experiment, that to empty combs in the end of a hive, and invert the frames with brood and honey, bees will carry all of the honey out of the brood-frames into the empty ones, when they are very easily taken out and extracted without disturbing the brood; and by so doing there is more space for the queen to deposit eggs. This is something new to me, and it may be new to others.

Bees in Cities.—Frank A. Eaton, Bluffton,←○ O., on June 3, 1887, says:

I notice that there is a craze or war against bees in corporations. I learned yesterday that the Town Council of Ada, O., has prohibited the keeping of more than 2 colonies by one person within the city limits. One man had over 100 colonies, which he has sold. Ada is a town of about 2,000 inhabitants, only 12 miles from here.

Queenless Colonies Gathering Pollen.—T. F. Kinsel, Shiloh,♂ Ohio, writes:

I notice an inquiry by some one desiring to know if bees will carry in pollen if queenless. They will. I made colonies according to "Simmins," and the queenless parts carry in pollen as well as the parts having the queens. So the pollen carrying by the field workers is no guide in May and June. It might be immediately upon removal from the cellar, or upon the first flight when pollen comes in the spring, when bees were wintered out-of-doors. A better guide would be to look over the combs for queen or eggs.

Clover Bloom, but no Honey.—J. Nebel & Son, High Hill,○→ Mo., on June 1, 1887, write:

White clover is in full bloom, and our bees are not gathering any surplus honey from it. Some colonies have gathered hardly enough honey this spring to keep them alive, and keep up brood-rearing. Colonies that have drones are killing them. We have to feed to keep them from killing all.

Specimen Bees, etc.—M. G. Maddock, Marion,○→ Iowa, writes thus on May 30, 1887:

What kind of a bee is the enclosed? Our raspberries are swarming with them. It is rather too dry and cool in this locality for bees. I had one swarm on May 26.

[The small black bee sent by Mr Maddock is too crushed for a complete identification. It is a species of *Andrena*. Bees of this genus are often taken in hives while stealing the honey. They look some like the common black bee in a general way, but are smaller, and when closely examined they are seen to be quite different.

Let me urge all who send insects, to put them into a close, strong tin box. Simply placed in a letter they are so crushed as to be beyond identification, and are rendered useless as specimens.—A. J. Cook.]

Queen Mated within a Hive, etc.—J. W. Tefft, Collamer,⊙ N. Y., on June 7, 1887, writes:

About April 1 Mr. Wilenan, of this place, noticed that his best colony of Italian bees superseded their queen, and started queen-cells. I inquired as to the drones, and learned that there were none. But in one colony there was some sealed drone-brood. I suggested to him to put that frame of drone-brood in the hive containing the queen-cells. This queen-cell was not capped over, but the drone-brood was. The following 16 days the weather was cool, and no bees were on the wing, and no drones or bees were in sight except those we saw inside the hive. On the sixteenth day the colony was examined, and a patch of worker-eggs about 6 inches in diameter was found. Was the queen mated inside the hive? She must have been, as it was so cold that not a bee was to be seen. Drones do not fly until 7 days old, so we are told by the veteran bee-keepers. We had our doubts whether the bees would be worker bees, so we have waited to see, and they are all right. Another experience: I bought a queen last August, introduced her successfully at the time to a powerful colony of black bees, having 7 frames of brood. That queen never laid an egg last fall. The bees wintered, also the queen; and up to yesterday it had not laid, when I killed her, and gave the bees a frame of eggs. What was the matter with that queen? Will some one tell?

Alsike at a Premium.—A. J. Cook, Agricultural College, ♀ Mich., on June 3, 1887, writes:

Our bees are swarming, although we have had no honey yet, and there is very little white clover. This is when Alsike would be at a premium.

Good Crop Expected.—P. P. Nelson, Manteno, ○+ Ills., on June 9, 1887, says:

My bees wintered all right. We are now having timely and abundant showers, and there is now every indication that the crop of bees and honey will be a good one.

Description of a Bee-Cellar.—F. A. Gibson, Racine, ○+ Wis., on May 31, 1887, writes:

At the request of Chas. Solveson and some others, I will give the following description of my bee-cellar: It is 16x24 feet, and 7 feet deep. It has a stone wall all around, with one tier of soft brick set on edge and cemented together on the inside of the stone wall, with an air space of 4 inches between. The floor is also cemented, and the ceiling has 10 inches of dry sawdust between the two floors for ventilation. I have 3-inch tile just above the ground floor; also one just below the floor, for water to run out. The drain and ventilator is about 60 feet long. My honey-house is on top of the cellar.

Queens Entering Wrong Hives, etc.—Edwin Baldwin, Mendon, +○ Ills., on June 8, 1887, writes:

What will keep queens from entering the wrong hive? In mating, many enter hives 20 or more feet distant. It has been rather dry here all the spring, in consequence of which the tubes of the red clover are shorter than usual, and the bees are working on it freely. In consequence of the dry weather, the white clover is about half a crop; but it yields fairly well. My bees are in good condition, and are working in the supers, the honey coming mostly from red clover.

White Clover and Basswood.—C. W. Dayton, Bradford, ♂ Iowa, on June 7, 1887, writes:

The white clover will yield but little this year, as it is nearly dried up. Basswood promises a full bloom, but it will be very early and likely of short continuance. I was tearing down queen-cells on May 25, to prevent swarming in several colonies. I have to feed daily to prevent starvation, but luckily I have just extracted 1,200 pounds of last years' crop, that was stored away in combs. It is dark and blue, and was gathered in the fall—not fit to sell, at least not to the ignorant.

Hot Weather in Arizona.—M. H. Mendelson writes from Casa Grande, ♀ Arizona, on May 31, 1887, thus:

The average heat here for the past few days has been 100° above zero, in the shade, and the hot weather for the season is but just commencing. I am going back to San Buenaventura, Calif., in a few days.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, **5** cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15.00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages) $1 00
" 100 colonies (220 pages) 1 25
" 200 colonies (420 pages) 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Prices are about 10@12c. for comb. Extracted, 5@7c., according to quality and packages. Stocks and demand light.
BEESWAX,—22c. R. A. BURNETT.
June 9. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.
BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 4¾@5 cts.; light amber, 4½c.; amber, 4¼c. Comb, white, 12@14c.; amber, 7@9c. Demand good.
BEESWAX.—23c.
May 8. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.
BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.
BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4¼c. Market quiet.
BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; In white in kegs and barrels, 8@6½c.; dark, 4 to 4½c.; amber, in barrels, 4½@5c. Demand limited and supply small.
BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@6c. Sales large and demand good.
BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Very little extracted in the market.
May 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.
BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. per lb. Demand fair.
BEESWAX.—Good demand,—20@23c. per lb. for good to choice yellow.
May 21. C.F.MUTH & SON. Freeman & Central Av.

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

◆

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

The Convention History of America with a full report of the proceedings of the Detroit and Indianapolis conventions, and the AMERICAN BEE JOURNAL for one year, will be clubbed for $1.25.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Some Additions to our Catalogue.—ENAMELED CLOTH, for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 9, 10 and 11, 1887. The Secretary's notice will be issued soon—naming the place of meeting and other particulars.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Medley of American Bee-Keepers.—I have a few left of this Medley, and any one who desires to look upon the faces of 130 of the principal apiarists of America—dead as well as living—should send $1.00, at once, for a copy, to

E. O. TUTTLE, Charlotte, Vt.

Advertisements.

WANTED.—A young man for 3 months, who has handled bees. Write price, experience, &c. Reference given and required.
W. L. Coggshall, West Groton, N. Y.
24A1t

BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.
M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

FOR SALE CHEAP.—One GIVEN'S FOUNDATION PRESS and FIXTURES complete. Nearly new, and in good order.
Address, **W. C. CUMMINGS,**
24A2t BUSHNELL, ILL.

DR. FOOTE'S
HAND-BOOK OF HEALTH,
HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the Utmost Importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping Bathing, Working, etc.

IT TELLS ABOUT

What to Eat,
How to Eat it,
Things to Do,
Things to Avoid,
Perils of Summer,
How to Breathe,
Overheating Houses,
Ventilation,
Influence of Plants,
Occupation for Invalids,
Superfluous Hair,
Restoring the Drowned,
Preventing Near-Sightedness,
Parasites of the Skin,
Bathing—Best way,
Lungs & Lung Diseases,
How to Avoid them,
Clothing—what to Wear,
How much to Wear
Contagious Diseases,
How to Avoid them,
Exercise,
Care of Teeth,
After-Dinner Naps,
Headache, cause & cure,
Malarial Affections,
Croup—to Prevent.

IT TELLS HOW TO CURE

Black Eyes, Boils, Burns, Chilblains, Cold Feet, Corns, Coughs, Cholera, Diarrhœa, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts Whooping Cough, Worms in Children.

Price only **25** Cents. Sent by Mail, post-paid.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

WANTED.—Five, 10 or 20 young Italian Queens, before July 1st; may be sent as soon as laying—pay on delivery. Who bids? Reference, First National Bank of Groton, N. Y. **W. L. COGGSHALL,**
24A1t WEST GROTON, N. Y.

BEES for SALE, Cheap.

100 Colonies of American-reared **Italian Bees**, best strain, strong, and in 10-frame wired Simplicity hives; for sale CHEAP. Address, **Z. A. CLARK**,
8Etf ARKADELPHIA, ARK.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample ents Price-List of Supplies free.

Address, **DR. G. L. TINKER,**
8Etf NEW PHILADELPHIA, O.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

DRAKE & SMITH,

Successors to A. E. Manum, Bristol, Vt.

MANUFACTURERS of the **BRISTOL Bee-Hive**, the Standard Hive of Vermont,

SECTION HONEY BOXES,

made from white poplar, (the best timber in the world for honey-boxes), Clamps, and a **Wood Thumb-Screw** for Clamps. Separators and Wood Sides. ☞ LIGHTNING GLUERS Shipping-Crates, Bee-Escapes, Bee-Feeders, and

MANUM'S BEE-SMOKERS,

all made of the best material and in a workmanlike manner. Send stamp for Sample SECTION and Price-List. 2E12t

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

FOR SALE!

1,000 to 5,000 Surplus Honey Crates, all painted and filled with 28 one-piece Sections, 7 to the foot. Will fit 8-frame Langstroth hive or Heddon's Langstroth hive. The best CASE ever in use. Especially adapted for Tiering-Up. In lots of 5, 40 cents each. PRICE-LIST free.

J. W. BITTENBENDER,
18Atf KNOXVILLE, IOWA.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

WOULD respectfully call the attention of all who use Foundation, to the fact that he has written, published, and now offers for sale a neat little book of 45 pages, entitled

"THE PRODUCTION OF COMB HONEY;"

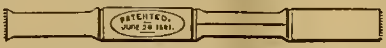
in which, among other things, is made as clear as possible the question of when, where and how to use Foundation. When empty combs are preferable. When the bees should be allowed to build their own combs. How to prevent the building of drone-comb, etc., etc., etc.

The price of the Book is only 25 cents, and the knowledge gained from its perusal will enable its possessor to save more than the price of the book, in foundation, upon *each swarm hived*; and secure more honey into the bargain. Don't wait until the swarming season is over, but send for the book NOW—and be ready to test, this season, the plans and methods it advises. 23Atf

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis


PATENTED, JUNE 28 1881.

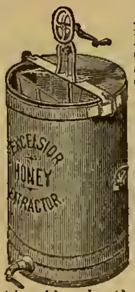
Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

ITALIAN Queens by return mail: Tested, $1; Untested, 75 cts. Two-frame Nuclei, $1.50; 3-frame, $2. BEES by lb., 75 cts.
21Atf **GEO. STUCKMAN, Nappanee, Ind.**

EXCELSIOR

HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	......$8 00
For 2 Langstroth "	10x18	"	.... 8 00
For 3 " "	10x18	"	.........10 00
For 4 " "	10x18	"	.........14 00
For 2 frames of any size,	13x20	"	.........12 00
For 3 " "	13x20	"	.........12 00
For 4 " "	13x20	"	.........16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

A GREAT SCHEME! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,

J. R. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

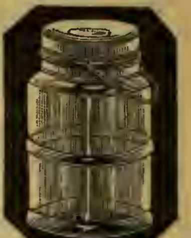
and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
16A12t

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....		$1.60
" 2 pounds "	"	.....	2.00
" 3 " "	"	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

ARMSTRONG'S

New Reversible Hive.

The cheapest, simplest and most practical Hive ever offered to the public.

H. D. Cutting, of Clinton, Mich., says:—"Let me congratulate you on having such a good hive; your 'reversible' section-case is perfection itself."

Sample Hive, complete and painted, $2.50.

Send your name and post-office address, plainly written on a postal card, and receive our 32-page Illustrated Catalogue, free.

Address, **E. S. ARMSTRONG,**
9Atf JERSEYVILLE, ILLS.

BEE-KEEPERS—read and save Money. Sections, Crates, Frames, Foundation, Hives, etc. Sections, $3.50 per 1,000. Send for Price-List. **C. MATHEWS,**
23A4t IMLAY CITY, MICH.

Vandervort Foundation Mill.

12 Inch, Price, $30.00.

☞ We can ship them immediately.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Alley's Queens!

Warranted, $1; Select, $1.25; Tested, $1.50

AMERICAN APICULTURIST 1 year and Select Queen, $1.50. **How to Rear Queens** (300 pages, 100 Illustrations, bound in cloth), by mail, and one Tested Queen, $2. **How to Get Comb Honey**, 20 pages, 10 cents. Address, **HENRY ALLEY,**
21Atf WENHAM, Essex Co., MASS.

BEES! 300 COLONIES ITALIANS

READY for spring delivery at 60 cts. to $1.00 per pound, according to time. Choice Queens and Brood cheaper in proportion. Also ADJUSTABLE HONEY-CASE and other Supplies. Circular free. OLIVER FOSTER,
11Atf Mt. Vernon, Linn Co., Iowa

Chapman Honey-Plant Seed

(*Echinops sphærocephalus.*)

We can supply this seed **POST-PAID** at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. June 22, 1887. No. 25.

Beautiful Flowers are now everywhere to be seen. The bees are attracted by their hues and sweetness, sip the honey from their tiny wells, and with a happy buzz fly to their homes with their rich treasures.

Bee-kissed flowers blooming in every place,
 Through this beautiful world of ours.
And, dear as a smile on an old friend's face,
 Is the smile of the bright, bright flowers !

Please Notice that the date of holding the Convention at Chicago next November occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Where to Keep Honey is the title of Leaflet No. 3. For prices see the second page of this paper. If you wish to see a sample of it before purchasing, send for it.

"Das Bienenwachs und seine Verwertung" is the title of a new pamphlet by Mons. J. Dennler, editor of the Alsatian bee-paper. Its subject is the making of comb foundation by the plate and book systems. We acknowledge the receipt of a copy of it "with the author's compliments."

Paste for labels on tin pails may be made thus :

> Make a thin solution of white glue, then thicken it with wheat flour until it is about the consistency of paste. This is to be made the same as any other paste. Cover one side of the label with the paste, then put on the honey can or pail, and I think you will not have any trouble about labels coming off.

Paste made in this way will hold the labels to the tin so well that they will not come off. Just try it, if you want to make your honey to be attractive, and to sell readily. A nice label on a can of honey helps wonderfully.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. The Secretary's notice will be issued soon.

Laying Workers.—In an exchange we notice the following item concerning some microscopic investigations made by Mr. Frank Cheshire of laying workers. His experiments are always thorough, and the reports concerning them are read with much interest by his apiarian friends throughout the world. Here is the item :

> At a recent meeting of the Royal Microscopical Society, Mr. F. R. Cheshire called attention to some specimens of bees, known as "fertile workers." It was generally well known that in the bee-hive all the eggs were usually laid by the queen, and in her absence no ovipositing occurs until they have taken some of the eggs remaining in the hive, and by a special feeding of the larvæ, have been able to produce fresh queens. If, however, it should happen that in a hive, which has lost its queen, there are eggs available for this purpose, it was found that some of the workers under some special circumstances, which could not be very clearly explained, became capable of laying eggs, but that such eggs produced drones only. These bees were known as fertile workers, and though there could be no doubt as to their frequent existence, they were very difficult to catch, owing to their being the same in appearance as the ordinary workers. He now exhibited two of these fertile workers having the ovaries drawn out of the bodies, and attached to the stings and abdominal plates, so as to show that they really were workers. There was a remarkable peculiarity to be observed in connection with the ovarian tubes of these insects—every ordinary worker possessed an undeveloped ovary which it was very difficult both to detect and dissect : but when under the influence of some stimulus the worker became fertile, a number of points began to appear in the tubes which afterward became developed, and it would seem that the eggs were developed in alternation, an examination of the tubes showing them to contain developed eggs alternating with others in an undeveloped condition, and of which some very curious instances were seen in the specimens before the meeting.

In Canada the bees "are in clover," and the honey crop promises well. The *Canadian Bee Journal* says :

> This bids fair to be the bee-keepers' jubilee year ; as thus far we have had a continuous flow of honey.

Mr. R. F. Holtermann, editor of the *Canadian Honey-Producer*, writes as follows, dated at Brantford, Ont., June 16, 1887 :

> On Monday morning, June 13, I had 50 pounds of mostly clover honey from one upper story, and put another full upper story on, to give the bees room. The same room I gave to a number of others, and took from 30 to 40 pounds of honey. Bees have been "booming" ever since. Reports generally through Ontario are good. Swarming has been very early, but we are giving bees ventilation, shade and room, and keeping down increase.

Diseased Bees.—There is a bee-disease in Germany called "Maikrankheit," because it is usually seen in May. The bees have distended abdomens, because they have not been able to void their feces, after partaking of pollen collected in the early spring after it had been touched by frost. A good remedy is to put a little salicylic acid in syrup and feed it to them—keeping the hive dry, and preventing the accumulation of moisture inside.

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

Home Markets for honey should be created in every village and city in the United States. The price of honey can be largely increased if bee-keepers will but market their honey at home instead of shipping it to "the great marts of trade"—there to be sacrificed by those who have no interest in it except to get their "commissions" from its sale, and accept the first offer that may be made for it, no matter how low the price named may be.

Some time since Mr. Pond made these remarks concerning the habit of bee-keepers of shipping their honey to a large city instead of developing their home markets. He said :

> Many producers of honey are not salesmen, and consequently have no real knowledge of the best ways and means of disposing of their goods. Instead of *making* a market for their surplus honey, and disposing of it in that market, they all rush it into some large city, and, of course, overstock *that* market at once. Compare for a moment the crop of honey of the last ten years with the number of people in this great country, and how much *per capita* will it show up ? There are thousands and thousands of people who would gladly buy honey, if they could do so near their homes, who never see an ounce from one year's end to another.

Ten thousand home markets, each consuming a ton, are far better for the regular sale of the honey which is produced than to depend upon one market taking the whole of the ten thousand tons. What injures the pursuit most is an uneven distribution of the product. Let us see if this cannot be remedied this season, at least in part.

Well! How Funny!—Here is an item from one of the mammoth metropolitan weeklies, which may at least produce a smile at the reporter's ingenious way of "dressing up" a "fancy" to be presented to the credulous reader :

> That bees are remarkable architects for insects is conceded, but Father Poupain Bridoul, S. J. (Lille, 1672), tells of a hive in which the bees built of wax a chapel, with doors and windows, bells and vestry. In this chapel the bees collected and made music. The reason was at last discovered. A sacrilegious thief who had stolen a pyx from an altar, threw it into the hive while under fear of being caught, and the good bees at once took care of it in this artistic fashion.

We never before heard that bees were accused of being over religious ! The only way they have been said to "sing" in church is when they have found a home under the roof or in the walls of the building, when their gladness shows itself in a merry and satisfied "hum."

Bring on your next "funny story," and get a laugh in return therefor.

Frank Leslie's Sunday Magazine for July contains two important historical articles, which are especially timely in view of the possible European complications. These are, "Francis Joseph I. and the Austria Hungary Empire," by George Makepeace Towle, and "When Greek meets Turk," by Oscanyan. Read together they afford a clear view of Central and Southeastern European politics. Several lighter articles, beautiful poems, and many fine illustrations add to the interest and charm of the midsummer number of the favorite Sunday magazine.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Queenless Colony Working.

Query 433.—Can a queenless colony be made to work satisfactorily? If so, how would you manage it during the honey-flow?—V. V. H., Ohio.

Give the bees a chance to rear a queen.—DADANT & SON.

I know of no practical method.—C. W. DAYTON.

I have had no practical experience that way.—H. D. CUTTING.

By giving them some larvæ and eggs with which to start queen-rearing.—JAMES HEDDON.

Not as much so as one that has a queen, and for that reason I should introduce a young queen at once.—J. E. POND.

Yes, it will work well if it has a little brood from which to start queen-cells. Extract the honey.—W. Z. HUTCHINSON.

I have had them do very good work, yet on the whole I believe it is best to have a queen present. — C. C. MILLER.

I prefer to have a queen in each colony. Some claim to make queenless colonies do good "biz," but I am not among that number.—G. M. DOOLITTLE.

A strong queenless colony will gather more surplus in a given time than a colony that is rearing much brood. But at the end of the time you will have the surplus *without* the colony.—J. P. H. BROWN.

I have not succeeded in making queenless colonies store comb honey to any extent. Bees never work with so great energy and advantage as when they have a quantity of young larvæ to feed and care for.—G. L. TINKER.

Yes, if the queen is just removed, and they have brood in all stages. They will then do their best. If they are hopelessly queenless — that is, have no eggs or young brood—they will do very little work.—A. J. COOK.

Yes, by proper management. I have written several articles showing how it can be done, but I have found that better results can be had by letting the bees have a queen, but restrict her to a very small brood department. But it does not pay to cramp the queen beyond certain limits, if the bees are to be kept in good conditions.—G. W. DEMAREE.

A queenless colony without brood or eggs will very soon become discouraged, and refuse to work. If they have "brood" to care for, they will work well while rearing a queen.—THE EDITOR.

Dividing, or Natural Swarming.

Query 434.—Of the two methods of securing increase, dividing and natural swarming, which do you consider the better for a large apiary?—Ward, Wis.

Natural Swarming.—W. Z. HUTCHINSON.

Increase by dividing colonies, by all means.—DADANT & SON.

Natural swarming.—G. M. DOOLITTLE.

It depends upon the locality, pasturage, etc. In my locality I prefer natural swarming.—J. P. H. BROWN.

Natural swarming, if it is practicable. If we have to leave our bees all day, it cannot be practiced safely. —A. J. COOK.

It depends upon the man, and perhaps on the place. I should be delighted never to see another natural swarm, even if I wanted to double every year.—C. C. MILLER.

Sometimes one, sometimes the other. I prevent swarming if possible, and make the increase by dividing at the close of the honey harvest. If they must swarm, then make the increase in that way; both methods are usually employed. If honey was no object, I prefer natural swarming. —C. W. DAYTON.

Natural swarming vigorously discouraged, for in the large honey-producing apiary we do not want any increase. If I did, and especially if I had plenty of empty combs, I might prefer and employ dividing colonies to obtain it.—JAMES HEDDON.

Dividing. This, however, is a mooted question, and one that depends so largely upon the man and the location, etc., that it is really an individual matter, and no positive rule can be laid down in regard to it. —J. E. POND.

I would not be confined to any one method; it is best to practice both. In many cases I prefer natural swarming. Too many good colonies are ruined by untimely dividing. The theory of dividing is all right, but just when and how to do it is a difficult matter to one not thoroughly posted.—H. D. CUTTING.

Natural swarming, all the time. When several swarms issue and settle together they may be separated by throwing them on a sheet, and the queens secured. Then divide up the bees and give a queen to each lot in hiving. Where increase is not desired, it is better to take out all the queens but one, and hive all together, giving sufficient room in the supers. In any case, I prefer the contracted brood - case and queen - excluding honey-board in managing swarms.— G. L. TINKER.

In a "large apiary" increase is usually undesirable. The object of the apiarist would be, a good crop of honey, and no increase. In such case "natural swarming" would be discouraged in every possible way, and "dividing" practiced only in such a way as to prevent swarming.—THE EDITOR.

Uniting Weak Colonies.

Query 435.—Would you advise uniting weak colonies in the spring? If not, what course is best to pursue with them?—M. C. G., Ills.

See my answer to Query 432.— —JAMES HEDDON.

See my answer to Query 432.—J. E. POND.

See my answer to Query 432.—H. D. CUTTING.

See my answer to Query 432.—J. P. H. BROWN.

Not until just before the honey harvest.—W. Z. HUTCHINSON.

Let them be until June, then unite them.—G. M. DOOLITTLE.

No. I get them as strong as possible, and unite them to form strong colonies in time for honey-gathering. —C. W. DAYTON.

If they have queens, confine them, pack around them closely, stimulate gently, and as they and other strong colonies can bear it, give them frames of capped brood.—A. J. COOK.

No. I would build them up into strong colonies. If I had more bees than I wanted, and could not sell them, I would unite the weak colonies just before the white clover harvest begins.—G. W. DEMAREE.

If a colony is too far gone to help itself, it will not amount to much when united with another. But the help of weak colonies, from strong colonies in the spring, is very efficient, if carefully done.—DADANT & SON.

See my answer to Query 432. There seems to be but one practicable plan to unite either weak or strong colonies, and it is done as follows: Take out one of the queens and move the colonies to be united a few feet each day until near each other. In 9 days cut out the queen-cells and place one colony over the other. If the bees are sprayed with essence of peppermint, there will not be a bee killed, and but very few without it.—G. L. TINKER.

No. Give them frames of brood from strong colonies if you have them, and they will build up rapidly. —THE EDITOR.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Making Nuclei—Uniting Colonies.

G. M. DOOLITTLE.

[Mr. G. N. Benjamin, of Tampa, Fla., asks that the following article, which was written for the BEE JOURNAL several years ago, be re-produced for the benefit of new readers, especially as it was referred to by Mr. Doolittle in his article on page 309 for May 18, 1887. The article is as follows:—ED.]

I have heretofore told the readers of the AMERICAN BEE JOURNAL how I had tried all the then known plans of making nuclei, none of which suited me on account of so many of the bees going back to the colony from which they were taken. Where an apiarist has two apiaries several miles apart, bees can be brought from the apiary furthest from home with which to form a nucleus, so as to be a success every time. But as all do not have such an apiary, and there is much trouble about the plan, to those who do have, it is quite an object to have a plan by which a nucleus can be formed when and where the apiarist wishes. To accomplish this object, I studied out the plan of caging a frame of hatching brood, and by putting a virgin queen two or three days old into the cage, I had a plan that has worked much better than any that I had previously tried. However, in some cases this plan partially failed, as the bees in the hive, in which the caged frame was placed, would partially desert one side of the cage so some of the hatching brood would become chilled, while again some would worry and try to get out until at the end of five days a portion of the newly hatched bees would be dead upon lifting the frame from the hive, at the time of placing it where it was to stay.

At the same time that I was practicing the plan described on page 344 (1883), I was also trying another plan which was at first designed for the safe introduction of virgin queens, to do which I proceeded as follows: I made a box by taking two pieces of wood 6x6x¾ inches, and two other pieces 12x6x¼ inches, the latter being nailed to the former, which made a box 10½ inches long by 6 wide by 6 deep, without sides. I next got two pieces of wire-cloth 12 inches long by 6 inches wide, one of which was nailed permanently to one side of the box, while the other was left so it was removable at any time. In the top of the box was bored a large hole into which a large tin funnel (such as is used by those selling bees by the pound) could be inserted. Near one end I bored a ¾-inch hole through which I could put in a virgin queen as soon as the bees from a nucleus were shaken through the funnel into the box. The box was then placed in a dark cellar until night, when it was put over the combs of the nucleus from which the bees were shaken, when the removable side of the box was taken off and the bees allowed to return to their combs during the night.

In this way I thought to introduce and get a virgin queen to laying in two or three days after I had sold a laying queen from a nucleus, which, in turn, could be sold and another introduced in like manner, thus making it profitable to rear queens at the low price of $1 each. But I soon found that not more than one queen out of three thus put into the box would be accepted by the bees, while those which were accepted were so slow in getting fertilized (some requiring ten or more days), that I became disgusted and went back to the cell-plan.

In one of these experiments I took the bees from a full colony to see if I could succeed better, but they killed the virgin queen almost as soon as I put her into the cage. Just then I was called away, so I hastily placed them in the cellar and left them. When I returned towards night, I thought I would see if I could form a nucleus of them, by placing a frame of brood and one of honey in an empty hive and turning them upon it. Accordingly I rigged the hive as above. Before I had all completed it was nearly dark, so I felt sure that I could succeed, as no bees could get back home until morning. Before sunrise the next morning I saw that these bees had not clustered on the brood at all, but had crawled all over the hive, many of them being outside, from which place they were flying for home.

When I went to the hive from which they came, imagine my surprise to find that they were being treated as strangers, some even being killed, so that not one was allowed to enter the hive. Suffice it to say that all were lost and killed, but from it I learned one thing, which is, that bees confined in a small space with a different queen from their mother, whether dead or alive, would be disinherited if kept in such a space for eight or more hours.

Soon after this I had a queen sent me very unexpectedly, and as I did not value her very highly, I thought to form a nucleus with her, and resolved to try the caging of bees with her. After getting the bees into the cage, I feared to let her in with them, so I waited a couple of hours, at which time I found the bees in great agitation from knowing that they had no queen with them. I now let the queen run in through the small hole, when a more happy lot of bees was never seen. These bees were found compactly clustered in the top of the box the next morning, when they were hived on two frames of brood, and soon built up into a colony. From all of the above I learned the following, which I believed to be the best known plan of forming nuclei:

Procure a box and funnel, as described above, and go to any hive that can spare from it, from a tea-cupful to a quart of bees, according to the size of the nucleus desired; take out a frame or frames having bees on the combs (be sure you do not get the queen), and place it on the outside of the hive. Give the frame several sharp knocks with a little stick, to cause the bees to fill themselves with honey, and when so filled shake as many bees down through the funnel into the box as you wish in your nucleus. Take out the funnel and close the hole, when you will put the frame from which you shook the bees back into the hive and close it. Now take the box of bees to the cellar, or a darkened, cool room, and leave them two or more hours, when you will give them (a laying queen) any poor queen you care little for, or a good one if you choose.

To put the queen in, put the box down suddenly, so that all the bees will fall to the bottom, when the queen is allowed to run in through the small hole. I generally form the nucleus about 1 p.m., and let the queen in at 3 p.m. Early the next morning, take a frame having a very little brood in it, and one with honey, and place in a hive where you wish the nucleus to stay, using a division-board to contract the size of the hive.

Now, hive the little colony from the box the same as you would any swarm, and they will go to work immediately. In two or three days form another nucleus in the same way, and when you are ready for the queen, go to this last made nucleus and get this same queen to use for the next, which is to be made from the bees in the box, and in this way keep on forming nuclei as long as you wish them. In this way I made 3 queens form 60 nuclei one season. After the queen is taken away from the first formed nucleus, to form the second, the nucleus is to be treated the same as any queenless nucleus is treated, and when virgin queens are introduced there need not elapse more than a week before the nucleus will have a young laying queen.

There are three reasons for using a laying queen in forming the nucleus; the first of which is that the bees will always accept her and behave just as you wish them to; second, this queen will furnish all the eggs that the nucleus can care for during her short stay, so they are well supplied with young brood at the outset; and third, a laying queen can be taken from the nucleus sooner by the above plan, as where a virgin queen is used to form the nucleus, such queen is exceedingly slow about becoming fertilized. In conclusion I will say that I know the plan will work if followed as I have given directions.

Borodino,⊙ N. Y.

British Bee Journal.

History of Bees—Interesting Facts.

WILLIAM RIATT.

The ancients are known to have kept bees in a domesticated state more than 2,000 years ago, and that probably much in the same fashion as is common in Eastern countries to this day. Hives were made out of hollowed logs, or, where the timber was scarce, of cylinders of clay or of wicker-work plastered with clay. Such hives are still used in the East, where it never has been the practice to kill the bees in order to get their honey. These logs or cylinders are placed in a horizontal position, and the honey taken from the end most distant from the entrance. The natural tendency of bees to store their surplus at a distance from the entrance is thus taken advantage of. In the Russian log-hive another advance is made, based on the tendency of the bees to store above as well as beyond the brood-nest. The hives are raised a little on the back, and thus the certainty of finding virgin comb at the further end is increased.

There is evidence in ancient chronicles, and among the laws of our Anglo-Saxon forefathers, that bees were at one time altogether wild in this country. Previous to the eighth century they were classed with foxes and others as incapable of private ownership. Whoever found them in the woods was entitled to their honey and wax. The honey was highly esteemed as an article of food, and was largely used in making mead and in medicine.

The wax was in great demand by the clergy, who taught that bees had been sent from heaven because the mass could not be celebrated without wax, and under their influence they were gradually domesticated, being kept in hollow logs or hives of bark (Lat., *Rusca*). Hence, a hive of bees was called a "rusca" of bees, a word surviving to this day as a name for a straw-skep. As bees now come to be looked on as a property, the law recognizing the right to a wild swarm as belonging to the person on whose land it had settled for three consecutive nights. If he failed to discover it within that time, the finder had a right to 4*d*., and if that sum were not paid he might claim the sum. At that time a "rusca" of domesticated bees was valued at 24*d*.

Under the stimulus of a demand for honey and wax we find great lords, about the middle of the tenth century, having *beo ceorls* specially detached to attend on the bees, and the slaves gradually becoming serfs who paid their feudal lord a fixed amount of the produce of their hives. About this time also the name "rusca" often gives place to the Anglo-Saxon word *beo cest* (bee-chest), or the Latin word *alvearia*, which marks an advance from mere shells of bark to more regular hives. Domesday Book mentions them repeatedly, and they were even tithed as valuable property.

Comparatively little progress was made in bee-keeping until the close of the last century, when the discoveries of Francis Huber afforded the ground for a great advance. Previous to this, the natural history of the bees, and especially of the queen, was very imperfectly understood. Huber was the first to announce the true nature of the three classes of bees found in a hive—the queen, workers and drones. The German Shirach and the Scotish Bonner discovered the method of causing bees to rear queens at pleasure. At a latter date Dr. Dzierzon and Baron Berlepsch established the fact of the parthenogenesis of queens—that is, of the power they have of producing male progeny while still in a virgin state. They also proved that queens mate in the open air, and that within from 2 to 20 days of their birth. The impetus thus given to bee-keeping was followed, as has already been mentioned by those welcome mechanical aids, the frame hive, comb foundation, etc., which have brought bee-keeping to the position of a science.

This sketch would be imperfect without at least a mention of those agencies of the present time for the diffusion of knowledge in bee-matters, viz., bee-papers and associations. These are now established in Germany, Italy, France, Switzerland, America and England. In England nearly every county has its association, and Scotland and Ireland have several, most of these being affiliated with the great central association of British bee-keepers, whose head-quarters are in London.

Simultaneously with the establishment of associations have come those interesting and instuctive exhibitions of honey and appliances, now the order of the day, by a visit to which a beginner will learn more in an hour than he could formerly have done by reading and practice for a season.

Haldimand, Ont., Convention.

The Haldimand Bee-Keepers' Association met at Nelles' Corners, Ont., on Tuesday, May 31, 1887, with President Kindree in the chair. The minutes of the previous meeting were read by the Secretary, George Best, and approved.

MARKETING HONEY.

The first question discussed was the marketing of honey. The President thought the best way of marketing honey was to put it up in small parcels in an attractive shape, and to offer none but the best quality.

Mr. Jack gave his views, saying that until honey was bought by large dealers, the same as cheese and other produce, the price would be low.

Mr. Armstrong said that marketing honey was like anything else—the best article sold more readily and brought the best price. The best packages for the local market were pint and quart sealers, and for shipping, the 60-pound tin vessels cased in wood are the best. Comb honey should be put in cases holding not more than 24 sections.

BEE-PASTURAGE.

The President advocated the planting of Alsike clover for bee-pasturage; it was our best honey-plant, and was excellent for cattle. He did not think it paid to plant anything especially for bees. Buckwheat was good for fall feeding.

Mr. Armstrong said that according to the report of the commissioners appointed to report on the Chapman honey-plant, it was the plant we needed. It was the best honey-plant known for yielding honey.

The Secretary advocated the planting of sweet clover in waste places, and on the roadside; it was an excellent honey plant, and was decidedly nicer looking than thistles and mullen stalks.

Mr. Vanderburgh advocated the planting of basswood for shade instead of maple; it was a good shade-tree, and one of the best for honey.

Several members expressed themselves in a similar way.

PREPARING BEES FOR WINTER.

The President had prepared his bees for winter in one way for several years, and had been generally successful, but the past winter he had not been so successful, and he thought he would have to change his plan. He thought he would have to resort to cellar-wintering, or some such plan.

Mr. F. Rose said one cause of loss in wintering bees, was in putting the packing too close on top, so that the bees could not pass over the tops of the frames to their stores.

Mr. Armstrong said the first mistake in preparing bees for winter was in beginning preparations too late. When bees are disturbed late in the fall they fill themselves with honey, and are very liable to be troubled with diarrhea. If bees are prepared early, have sufficient stores, and properly protected, they will generally come through all right. The bees should be put as close together as possible; if the colony was weak the bees should be crowded on as few frames as possible; they should be provided with good stores, and well protected from the cold. He put some in a clamp, packed with sawdust, and others were wintered in double-walled hives, and he did not lose a single colony last winter.

Twenty members present reported 475 colonies in the fall of 1886, and 300 colonies on May 31, 1887.

Mr. Jack said he had a lot of old combs with sour honey, and moldy, and wished to know what to do with them. Mr. Armstrong said he would give one frame at a time to a strong colony, and in 24 hours the frame would be as good as new.

Mr. Jack also asked how to put in foundation so as to keep it straight. He fastened it at the top of the frame and one side, and the combs were crooked. Mr. Armstrong said it should be fastened only at the top, and the bees would fix it all right.

Mr. Fathers wished to know which is preferable, natural swarming or dividing. Mr. Rose preferred natural swarming.

On motion, Mr. W. Atkinson was apppointed Director for Walpole, in place of Mr. Smith, removed.

The next meeting will be held at South Cayuga, on Saturday, Aug. 27, 1887. E. C. CAMPBELL, *Sec.*

For the American Bee Journal

Bee-Keeping Sacrificed to Prejudice.

Z. A. CLARK.

Thursday, June 9, 1887, was the day for us, the bee-keepers, to be laid upon the sacrificial altar, to be martyred for keeping bees in this city. Yesterday morning one of our citizens in three hours got up a petition to the Mayor and Council, asking an extension until July 1, in behalf of the bee-keepers, and got 104 names in three hours, lacking only four names of doubling the anti-bee petition, and our petition had about 40 of the 55 names on the anti-bee petition.

We had witnesses (citizens and farmers) to prove that bees were not a nuisance, and that they never interfere with sound fruit. I have the affidavits, and will forward them as they are sworn to, and you can publish any or all of them if you desire.

Arkadelphia, ♀ Ark., June 11, 1887.

Here is an extract from a local paper:

"It would be well if our citizens (any and all of them) were to do as our neighbor Z. A. Clark has done. I believe only a short period since he in his idle time gathered around him a trio of old fashion 'bee-gums' of our Arkansas black bees, he thinking it not as profitable to knock the head off and cutting down to the sticks, as following the new idea of frame hives and imported Italian bees. With modern bee-keeping 'old things have passed way,' and now we find Mr. Clark in possession of as well-equiped an apiary, and as fine a strain of bees as any in Arkansas or elsewhere in this our 'land of the free and homes of the brave.' Who is the author of Mr. Clark's little business? Has it not cost him time and a great deal of hard work? Besides, does he not give labor and lend to the education of other young men that are to come on the stage after we shall have passed away? It is a hard matter for us to do any business that will meet the approval of all. But the 'good book' tells us to look to our neighbor's advancement. If we do this and follow our own employment, we will have no time to 'growl' at others.

"Let us have more bees, railroads, factories, schools, and above all, peace with our neighbors. If we cannot get these, let's go to work and cut down the dog-fennel that ruins our sweet milk. Let us do something for our youths that are eking out their existence loafing—on our steets. Let us go to work, and have less 'gab!'"—*Clipper.*

For the American Bee Journal

The Honey-moon.

EUGENE SECOR.

Out in the cool September air,
At the close of a sultry, listless day,
Sat a recently-wedded pair,
Billing and cooing like doves in May.
The full-orbed moon was as needless as bright,
For the light of their eyes would have banished the night.

They heard the musical hum of the bees
As they rested from labor at home in full hives;
Buckwheat and goldenrod scented the breeze—
The fragrant fruits of well-spent lives.
So the air-castles built by this ardent young twain
Were filled as completely with Hope's golden grain.

The "Katydid" sang to his voiceless bride,
The crickets sharp love-notes brought no reply;
In a sad parting strain the "whip-poor-will" tried
To provoke from his mate a farewell sigh.
But the bride in the gloaming returned each caress,
And answered *her* husband's sweet words with a kiss.

Purple tinged leaves from the maples o'er head
As silently fell as the soft-falling dew.
They told of a summer too rapidly sped,
Of severed attachments, tender and true.
But the language of leaves had no meaning that night
To the couple who sat in the pale, glimmering light.

They talked of the happy days to come;
They planned as only the young know how;
They saw not the future as pictured by some
Who remember the past with clouded brow.
No visions of sorrow or pain were seen
To mar the sweet peace on this quiet e'en.

'Tis thus, ever thus that young hearts and true,
In Hope's dreamy realm delight to abide.
To them the sunshine is sure to peer through,
And Love's fairy-boat triumphantly glide.
How good of the Father to thus kindly conceal
The sorrows and losses that time will reveal!

Out in the early autumn air,
Drinking the honey-laden breeze,
We leave this happy, wedded pair,
Under the purple-tinged maple trees.
While the years come and go—as they will all too soon,
They'll fondly revert to this bright honey-moon.

Forest City, Iowa.

Prairie Farmer.

Swarming—Hints to Beginners.

MRS. L. HARRISON.

Much valuable time is spent at bee-conventions in discussing "Why bees swarm?" It would seem as appropriate to deliberate over the question "Why men and women join hand in hand and forsake their old homes. Is it for want of room? Or is it not that the hive was ventilated insufficiently? In an old book that belonged to my father, and to his father before him, I find the answer: "A man shall leave father and mother and shall cleave unto his wife, and they twain shall be one flesh." Young men and women leave large, roomy, comfortable homes and dwell in cabins and dug-outs. It was ever thus since the creation, when the edict went forth, "Multiply and replenish the earth." Since the morning stars sang together, the reproduction of animate nature has been going on, either by seens, stolons, offsets, or runners. Bees increase by swarming, just as their Creator ordained they should. Swarm after swarm leave the parent colony (until there is scarcely a "corporal's guard" left) each one to establish a community of its own.

Why bees swarm is of little practical importance to bee-keepers; but how to control this propensity is one of the greatest considerations. The wealth of a bee-keeper does not consist in the number of colonies that he possesses, but in the strength of each individual colony. Some colonies will swarm four and five times, and even more. The first swarm will be first-rate, the second good, the remainder, together with the old colony, will be of little account. The two first will be a source of revenue, while the others will eke out a living during warm weather, but probably die the following winter. The colonies that swarm the earliest in the season are generally the best, and it is wise econony to save all the young queens possible. If they are allowed to swarm *ad libitum*, the little casts—which will contain young, vigorous queens that have been reared under the best possible conditions—should be built up into populous colonies. A queen regulates her productive powers according to her income, and the number of her subjects. If from any cause such as scarcity of honey or pollen, or too few bees to cover and feed the young, she simply exudes the eggs from her oviduct, not taking the trouble to deposit them in cells; the workers eat them as fast as she lays them. What a difference between her and the stupid hen, which will sit for weeks upon addled eggs, a piece of chalk, or even upon nothing at all.

June is the great swarming month in the Northern and Middle States. In our experience we have had swarms from May until the last of September. One season, one hived on Sept. 12, filled the hive and stored about 10 pounds of surplus comb honey.

Bees will swarm any time when there is a continuous flow of nectar, and a bee-keeper should always have empty hives in readiness to receive them. Italian bees swarm frequently before building queen-cells, or apparently making any previous preparation for the event. The exact time when a swarm is going to emerge, cannot be determined beforehand with any degree of certainty. If during the swarming season few bees leave the hive while the occupants of adjacent ones are busily engaged in gathering honey, a swarm may reasonably be expected. During sultry weather a swarm may issue as early as seven in the morning, but the greater part of them come forth from ten in the morning to three in the afternoon. Occasionally an after-swarm may issue as late as five in the evening, but an old queen is seldom guilty of such indiscretion.

There is nothing more exhilarating to the bee-keeper, or anything that sends the blood tingling to his toes and finger tips than to hear the cry, "The bees are swarming." All is activity and life. A clean, sweet hive is in readiness, and a place chosen for it to stand. As soon as they are fairly clustered, if they are on the limb of a tree not valuable, it is either cut or sawed off, and carried to the hive, where they are gently shaken off on a sheet or board in front of it. If they do not readily find the entrance, they are scooped up, and put in it, or driven with a little smoke. Soon the watchword is sounded, a home is found, and they take up the march, seeming to see which can enter it first. If the queen does not enter the hive, remaining in the portico or on the outside of the hive, the bees will come out and cluster with her. A little attention should be given them until they are all in the hive and at work.

Bees always cluster when they swarm, near their old hive, and send out scouts to find a home. If they are not hived before their return, they will immediately dissolve and follow their leaders, and no inducement their owner may offer will cause them to settle.

Bees sometimes desert after they are hived, and when they issue from their new quarters take French-leave, and do not cluster. If a frame of uncapped brood is given them when hived, they seldom, if ever, abscond. There are many reasons why bees leave after hiving; the hive may be hot from standing in the sun before the bees were put into it; or it may have had too little ventilation. Charm them ever so wisely, and they will not accept a hive malodorous from kerosene or barn-yard smells. A swarm put into a clean, sweet, cool hive, and set in the shade, will show its appreciation of it by going to work with an energy that is surprising.

There are many devices used in hiving bees. Some prefer a light box perforated with auger holes, and fixed on to the end of a pole, which is placed underneath, or at the side of the cluster. The bees will enter the holes, and gather in or upon it, and can be carried to their hive. Others use a sack, kept open by a wire, and fastened to a pole.

Many bee-keepers practice clipping the queens' wings. When the swarm issues, she may be found hopping around in front of the old hive, and as soon as the bees find out that she is not with them, they return and search for her. The old hive could be removed; but a new one should be put in its place, which the bees will enter when they return. They can then be removed to a new stand, and the old one returned. Sometimes the clipped queen is caged and put where it is desired to have the bees cluster, and they will soon ascertain where she is, and gather there.

If decoy hives are placed in trees near bee-pasturage, a swarm may move into it during the season. Some persons object to this, as not being a legitimate way to obtain bees, but we fail to see any objection to it, as the bees would have entered some hollow tree, and been lost to their owner even if this hive had not been provided for them. A person living on the prairie and owning 3 colonies of bees, lost them all during the severe winter of 1880-81, and let his hives remain where they were standing. The next summer absconding swarms, finding no hollow trees, filled them all.

Peoria, ⊙ Ills.

Official Report of U. S. Entomologist.

Bees vs. Fruit—Experiments.

N. W. M'LAIN.

[The following is an extract from the Official Report of Mr. McLain to the United States Entomologist, for the year 1886, and now just issued by the Department of Agriculture, at Washington, in its "Reports of observations and experiments in the practical Work of the Division, made under the direction of the Entomologist."—Ed.]

I have, according to your instructions, repeated my experiments of last year for testing the capacity of bees, under exceptional circumstances, to injure fruit; adding such other tests and observations as the very severe and protracted drouth permitted. The house used last season, 10 feet by 16 feet in size, having sides partly covered with wire cloth and large screen doors in each end, was used again this year. Two colonies of Italian bees, two of hybrids, one of Caucasians, and two of Syrians were confined in this house.

These colonies were without food in their hives, and at intervals of three or four days were fed a little syrup for the purpose of keeping up their vigor, and to prevent dying from starvation. A wood-stove was placed in the house, and a high temperature was maintained for a number of hours each day.

The conditions incident to an unusually severe and protracted drouth were present within and without. The bees were repeatedly brought to the stages of hunger, thirst, and starvation, the test continuing for forty days.

Through the favor of Mr. T. T. Lyon, President of the Michigan State Horticultural Society, I obtained thirteen varieties of choice grapes from A. G. Gulley, of South Haven. Every inducement and opportunity was afforded the bees to appease their hunger and thirst by attacking the fruit which was placed before them. Some of the bunches of grapes were dipped in syrup and hung in the hives between the combs, some placed before the hives on plates, and grapes were suspended in clusters from the posts and rafters. The bees lapped and sucked all the syrup from the skins, leaving the berries smooth. They daily visited the grapes in great numbers, and took advantage of every crack in the epidermis or opening at the stem, appropriating to their use every drop of juice exuding therefrom, but they made no attempt to grasp the cuticle with their mandibles or claws. I removed the epidermis carefully from dozens of grapes of various kinds, and placed them on plates before the hives. The bees lapped up all the juice on the outside of the film surrounding the segments of the grape, leaving this delicate film dry and shining, but through and beyond this film they were not able to penetrate. I punctured the skins of grapes of all kinds by passing needles of various sizes through the grape and placed these before the bees. The needles used were in size from a fine cambric needle to a packing needle. The amount of juice appropriated was in proportion to the size of the opening in the skins, and the number of segments of the grape broken. The same was true in the case of grapes burst from over-ripeness. Bees are not only unable to penetrate the epidermis of the grape, but they also appear to be unable, even when impelled by the direst necessity, to penetrate the film surrounding the berry, even after the epidermis is removed. Grapes so prepared, without exception laid before the hives until dried up. If but one segment of a grape be broken by violence or by over-ripeness, the bees are unable to reach the juice beyond the film separating the broken from the unbroken segments until further violence or decay permits an entrance for the tongue. Clusters of sound grapes which I hung between the comb frames in the hives occupied by strong colonies were unbroken and sound after fifteen days' exposure in the hives. The skins were polished smooth, but none were broken. I also stopped up the entrance to several hives — containing good-sized colonies—in the apiary and in the wire-covered house, by pushing sound grapes into the opening, so close together that the bees could not pass through. By this means the bees were confined to the hives for days in succession, not being able to break down and remove the grapes, and although the skins of the grapes next the inside of the hive were polished smooth none were broken or injured.

The past season furnished an excellent opportunity to observe the capacity of bees, under so exceptional circumstances, to injure fruit, for the drouth was very exceptional both in duration and severity, and I was called to several places by fruit-growers to witness the proof that bees were "tearing open the skins of the grapes," and otherwise behaving in a manner altogether unworthy of an insect enjoying a wide reputation for virtue and orderly living. In each instance I succeeded in convincing the fruit-grower that the bees were simply performing the office of gleaners; that violence from other sources, or over-ripeness or decay had preceded the bees, and that he would be acting the part of wisdom in following the example of the bees in gathing the grapes before further violence, or the action of the elements, rendered them worthless.

After grapes have been subjected to such violence, or have so far burst open and decayed as to make it possible for bees to injure them, and the circumstances are so exceptional as to lead the bees to seek such food, unless they are speedily gathered they would soon become worthless if unmolested. During the past season I made many visits to vineyards, one located near the apiary I visited every day, and my observations and experience with bees in confinement, and those having free access to the vineyards furnishes abundant proof to convince me that bees do not and cannot under any circumstances injure sound fruit. If from any cause the pulp is exposed, such as the attack of birds or wasps—the most common source of injury—or from the ovipositing of insects, or bursting of the berry from over-ripeness, and if no other resources are available, the bees appropriate and carry away the juice, and the extent of the injury depends upon the degree to which the pulp is exposed, the sweetness of the juice, and the number and necessities of the bees.

Florida Dispatch.

Apicultural Outlook in Florida.

JOHN Y. DETWILER.

The outlook for the future of apiculture in this vicinity is more encouraging. The past year has been one of discouragement to all whose previous interest had centered in apiculture. From present indications the black mangrove will yield sufficient bloom from the growth obtained since the frost to subsist the colonies for the coming season, provided the buds now visible secrete nectar when in bloom. "Hope deferred maketh the heart sick," is an old-time proverb, and no where has it been more apparent than in this locality among the apiarists; as all things both good and bad must have an ending, so we have every reason to expect the unfortunate result of the freeze to our apicultural interest will soon be a thing of the past.

From authentic reports of apiarists in the vicinity of Oak Hill, Eldora, Hawk's Park, and New Smyrna, the prevailing opinion is that a small surplus may be harvested, providing the colonies are in a condition to take advantage of it. Climatic influences may prevent the secretion of nectar in the buds grown on new wood, and in this matter our hopes are blasted. It is not always best to predict trouble, though it is often well to anticipate it, should past experience warrant us in so doing. Having in previous communications given some most discouraging reports regarding the situations which I had reason to believe should not be concealed, I now feel the time is not far distant (next season at the most) that it will be in a great measure profitable to come to New Smyrna and vicinity to engage in apiculture, providing the climatic influences in relation to honey-production in Florida be taken into consideration.

"Smart Alecks," and those who know it all, are just as welcome in our ranks as any, and after they pass a season or two and gain experience in our methods, are as good citizens and neighbors as those who come prepared to profit by the experience of those who are competent to advise.

New Smyrna,⊙ Fla.

For the American Bee Journal.

The Symptoms of Foul Brood.

GEO. H. HOYLE.

When I wrote on this subject, on page 601 of the BEE JOURNAL for 1886, it was my intention to follow the article with others throwing more light on this much-disputed question. It so happened that I could not spare the time, and instead of doing as I intended, it has been nearly a year since I have written anything on the subject. In that time there has been a great deal written that I wished (but I lacked the time) to reply to. I expect to do so in the near future.

Before commencing on the part of the subject I wished to write about now, I want to contradict an assertion I saw somewhere in the AMERICAN BEE JOURNAL something like this: "We all know that it has been proven by scientists that foul brood is caused by bacteria." I say, we do not know anything of the kind. If we did, I am sure I would not have written what I have. If the reader would like to know how far it has been proven, let him look first on page 741 of the AMERICAN BEE JOURNAL for 1884, and he will see that Mr. Frank Cheshire is using the best means known to settle the question. As to whether he was successful, I will refer the reader to the *British Bee Journal* for May 13, 1886. As I was not taking that paper in 1885, I do not know how Mr. Cheshire explains his failure; but failed he must, as any one can see by looking up the paper to which I referred. There are a great many experiences recorded by practical apiarists that contradict the assertion quoted above; but it is not the object of this article to enter any further into that branch of the subject.

On page 616 of the AMERICAN BEE JOURNAL for 1886, Mr. T. F. Bingham writes of Prof. McLain's article on page 584, thus: "It will be noticed that while all the older writers on bee-diseases have regarded foul brood as its name implies, viz: a disease of the brood, and not of the older and mature bees; while the article above referred to avers 'that bees crawled out of the hives to die by tens of thousands;'" and further, "It is of importance to bee-keepers that we have just such descriptions of any malady which may in a single apiary occur." I have known for nearly two years that old bees, as well as the larvæ, would be diseased. I noticed the disease in the adult bee just by mashing one which had stung me; and the excrement, instead of being a yellowish color, was black; and afterwards I noticed that where they were disturbed, and in consequence spotted their hives, the spots were black.

But the old bees having the disease is not the cause of so many bees leaving the hives to die; for they are, as the Professor has probably noticed, young bees leaving the hive for the first time, and the last being deformed and useless in the hive they leave it. I believe the old bee to be short-lived in such cases; and some must of course be slightly deformed, as will be seen presently, but not enough probably to unfit them for their duties, but it may cause them to die sooner than sound and healthy bees, though they were fed healthy food instead of the stuff which made them sick while in the larval state.

Now as to why the bees are deformed and how, I will explain to the best of my ability: I go to a diseased hive, lift out a *new* comb filled with unsealed larvæ, hold it up to the light, and I cannot find a larva but what has the disease, though some have it worse than others. I put the frame back, and wait to see how they hatch out. We will suppose it is a pretty bad case, and will say 10 per cent. did not hatch, and 5 per cent. were removed before they were sealed up. Well, as there is there are more stages of the disease than one can imagine, of course these unhatched larvæ die in every stage of growth, from the time they are sealed until they hatch out. Some die in the act of biting the caps of their cells; some hatch and have not life enough to get out of the hive, and are dragged out. Some hatch with no wings, some with one wing. The majority that leave the hive look all right, but of course something is the matter with them, or they would not leave.

Sometimes bees do not seal larvæ, but let them grow until they fill their cells, then elongate the cells. I never knew a bee to hatch from such a cell that was of any value; and they are seldom able to come out of their cells. As so many bee-keepers have witnessed these elongated cells, who "never saw a case of the disease" (?), I am likely to have no little opposition on this particular point if I call it a symptom of foul brood; I call it that, nevertheless. Though there are some diseased colonies where the bees do not make elongated cells over diseased larvæ, it never occurs where there is no disease.

It will be seen from the above that a bee-keeper can have the disease in his apiary every year, it not being severe enough to kill many larvæ, and he never notices it. If he does notice it he would think nothing of it, as he is not looking for the disease to appear in discolored larvæ—he is looking for sunken caps with a small hole in the top. It may not make its appearance in the last-mentioned way—the causes may have disappeared before it has so far progressed. But whether it does appear that way or not, the soonest way to discover the disease is by the discolored larvæ, by which manner a close observer will detect it at least three weeks before he would see sunken caps.

I claim that the disease is caused by unfit food, and most invariably "honey-dew;" and of course the honey must be removed from the hive before the disease can be cured. If the bees continue to get this "honey-dew" that gave them the disease, why, any remedy will fail! If the flow of mean honey is of short duration, and they get little of it, it will do them very little damage; but if they get a hive full of the stuff, and are obliged to use it, it is sure death. I mean the kind that is most unfit. Some will cause the disease, but in so light a form that it amounts to nothing.

I want to caution bee-keepers on one particular point, and it is this: Under no circumstances should they use honey from the hive of a diseased colony without first boiling it. If you never neglect this caution, you can, I believe, be successful every time with Prof. McLain's remedy or Mr. Cheshire's remedy. But if you neglect what I tell you in this particular, I know you will fail with Mr. Cheshire's remedy, and I believe you will fail with the remedy Prof. McLain gives us.

In my next article I want to say something of the Jones remedy; and also something to those who do not think the disease was "in my apiary."

Mobile,♀ Ala.

[This subject is very important, and all apiarists should be informed on the various phases of the disease, so as to be able to detect it in any stage, or in any of its different forms.

The pamphlet on this disease, by Mr. Frank Cheshire, will repay the careful perusal of every one who keeps bees, for he treats the subject so thoroughly and practically, and so carefully describes his experiments, that it becomes exceedingly interesting.—Ed.]

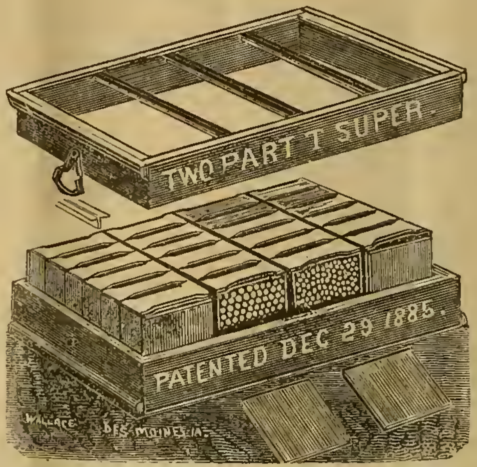
For the American Bee Journal.

The "Two-Part" Super.

J. M. SHUCK.

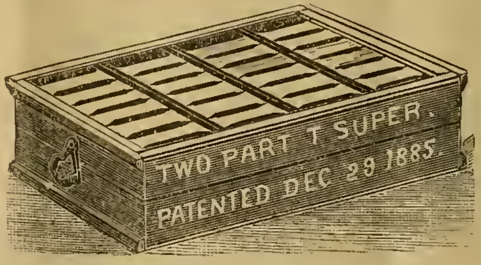
The cuts show quite specifically the offices of the different parts. The sections are set in on part, and the separators rest between the ends of the rows of sections and the sides of the super. Then separators protect the sides of the super from deposits of propolis, and prevent the end sections in the rows sticking to the super. The blanks at the tops and bottoms of the sections prevent the deposit of propolis on the sections, and as Dr. Tinker says of this super, "The protection against propolis is very perfect."

The **T**-shaped supports for the sections are made of wood and metal, by simply nailing hoop iron to the outer edges of the partitions; these partitions may be the full depth of the part-case or less. These supports may be made of tin, as shown in the cut, but they are not so substantial, and are no cheaper. There are few places in a bee-hive where even the best grades of tin are strong enough for profitable use.


TWO PART T SUPER.
PATENTED DEC 29 1885.
WALLACE DES MOINES IA

SUPER WITH UPPER PART LIFTED.

The **T**-rails, as shown in this cut, are nailed in place, and the super is quite stiff and serviceable, and ought to last during the life of the average bee-keeper. The parts of the super are easily slipped off the sections in a body, and scarcely any scraping of propolis is ever needed. The super is invertible, no adjustments being necessary except to place properly on the hive. Bee-space is provided on both sides of the super.


TWO PART T SUPER.
PATENTED DEC 29 1885.

SUPER COMPLETE.

Des Moines,⊙ Iowa.

Country Gentleman.

Honey Industry of California.

G. F. WRIGHT.

The bee and honey interest of California has, since the settlement of the State by whites, grown to the most remarkable proportions. How important it is, may be partially realized when it is known that reliable estimates put the probable yield this season at considerably over 5,000 tons. There being no organization of bee-men here, it is exceedingly difficult to arrive at an idea of the number of colonies of bees in California, the only source of information being the assessors' returns, which are always under rather than over the mark. It is certain, however, that there are between 65,000 and 75,000 colonies, and possibly more, and these are mostly in the five southern counties—Ventura, Santa Barbara, Los Angeles, San Bernardino and San Diego.

The first bees introduced into the State (four swarms in number) were brought from New York *via* Panama, at great expense and trouble, and when they reached California they were readily sold for $200 per hive. For some time thereafter not less than $50 a colony was paid; but now, so great has been the increase, it is possible to buy them in good condition from $1 to $5.

All through the southern part of the State the traveler will find the mountain canyons occupied by "bee-ranches," as they are called, and the owners of which will almost invariably be found to be men who have come out here for their health. In bee-keeping they find a combination of healthful out-door employment, and fair remuneration, which is the great *desideratum* of many semi-invalids. These ranches are mainly situated on unsurveyed government land, and are chosen for their proximity to an abundance of natural bloom, and to supplies of water. At first, many paid all their attention to the bees, and depended upon them entirely for support. It has been the experience of many, however, that it was useless to expect a "good season" oftener than every other year, and in consequence, fruit growing and small farming have largely been added to the keeping of bees. This has been rendered all the more necessary, too, by the extremely low prices at which honey has been held of late years. A fine quality of the extracted article sells for no more than 3½ to 4½ cents a pound in San Francisco, while comb honey brings 8 to 10 cents. With the high freights prevalent here, it may readily be seen that the margin is narrow for profit. The yield, however, is so far in advance of what is known at the East, that low prices do not mean here what they would there.

It may be set down as an invariable rule that in California, it is not advisable to place one's entire dependence upon the work of the bees, no matter how apparently favorable the outlook may be.

The hives now generally in use in this State are, first, a modification of the Langstroth, with an upper story adapted either for section-boxes or extracting frames. In San Diego the Harbison hive has many admirers. This is made all in one piece, with a movable back hung on hinges, the brood-chamber being protected by glass. It is a hard hive to handle, however, being subject to warping in the hot sun, and many bee-men would not take them as a gift.

In extracting, the honey is mostly drawn off into barrels, or into tin cans holding five gallons each, which are then sent to San Francisco. The cans are packed two in a case, like coal-oil cans, and afford an easy means of handling.

Much of the extracted honey here produced is so colorless, and unmarked by strong flavor, that it may be used for every purpose for which sugar is usually utilized, without its presence being suspected. In the writer's family, for many months, not a pound of sugar was consumed, but extracted honey was used in tea and coffee, in making preserves, and in all culinary operations, and it gave the utmost satisfaction.

A great deal of the extracted honey has been shipped in barrels on board ship directly to Europe, and good prices have been realized. The length of time, however, before returns can be received from such shipments, is a drawback to many engaging therein.

While the California bee-keeper does not receive such high prices for his honey as does his Eastern brother, there is one advantage which he possesses which is simply superlative. This is the fact that at all seasons of the year the hives remain in one place, requiring no protection whatever from the weather. The wintering of the bees has no terrors for the California apiarist. His hives stand in the shelter of a row of trees, or possibly with a brush shed over them for 365 days in the year, and there is not a day, winter or summer, when the sun is shining, that the inmates are not out and at work on the flowers which may be found at all seasons.

So far no effort seems yet to have been made by any one to provide the bees with a sufficiency of pasturage when the natural bloom for any reason is not abundant. The white sage is the principal mainstay of the apiarist here, but it frequently happens from peculiar climatic causes, that the flowers of this plant do not possess their normal sweetness, and in this case the yield of honey is light. There seems no good reason why flowers could not be planted in sufficient quantity to obviate the placing of entire dependence upon the natural bloom, and so make the bee-keeper independent of the baneful effect of poor seasons.

San Francisco,+o Calif.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Good Crop Expected.—W. H. H. Shreckengaust, Pattonsburg,+o Mo., on June 10, 1887, writes:

On page 363, Mr. D. D. Herrick says, "My first swarm issued on May 14. Who is ahead of that?" I am. My first issued May 9, and another on May 20, from the same colony. Our prospects for a honey crop in this locality are good.

Honey Crop in the South.—J. M. Jenkins, Wetumpka,⊙ Ala., on June 10, 1887, says:

My honey crop is almost a failure, and I have received similar reports from many others in the South. With me, the honey flows in April and May, and the most of that time was covered by a drouth. My location is nothing extra for honey, at best.

Rearing Queens.—H. Griffin, Kilgore,♂ Ky., writes:

First make a queen-nursery with a board just the size of a frame, bore 3 rows of 2-inch holes in it, tack wire-cloth on one side, and put little tin doors over the holes on the other side. Whenever a colony swarms, cut out all the queen-cells, and put them in the nursery, having first put some "Good" candy made of powdered sugar and honey; put the nursery in the hive from which the queen-cells were taken out, and when the cells hatch out they will live 10 days. This is a good plan for beginners who have a few Italian bees, and want a few queens for their own use.

Dry Weather—Motherwort.—S. Burton, Eureka,⊙ Ills., on June 14, 1887, writes:

White clover is a failure on account of dry weather. It is exceedingly dry in this part of the State, although bees are doing very well; they are working on red clover. The Italians are doing better than the blacks; they are storing some surplus, while the blacks have no surplus yet. The linden promises a good crop at this time. I have had no swarms yet.

I send a sample of a plant that grows on my place, and I do not know what it is. The bees work on it from early morn until late in the evening, almost swarm on it. Please give its name. There must be lots of honey in it, as the bees do not gather any pollen from it, for I have watched them closely. It began to bloom on June 1, and grows about 2 feet high. The first that I noticed of it, was some two years ago. I have quite a patch of it now.

[It is motherwort, and is an excellent honey-producer. It is usually covered with bees from the time it blooms until the last flower withers. It is an excellent plant to sow in waste places.—Ed.]

Gathering Dark Honey, etc.—B. T. Davenport, Aurorahville,⊙ Wis., on June 13, 1887, says:

Bees wintered rather poorly, I think owing to the unusual amount of honey-dew gathered last season. We have had a terribly dry spring, so we do not expect much clover honey. Bees are beginning to get honey now, but it is quite dark; I never knew of bees getting dark honey before in June, when white clover (what there is) is in bloom. They are working on the first crop of red clover more than common, as the blossoms appear to be stunted. Is this where the dark, thick, and quite pleasant honey comes from? Linden is going to blossom full.

Poorest Prospects for 15 Years.—S. W. Morrison, Oxford,o- Pa., on June 11, 1887, writes:

There has not been for 15 years so poor a prospect for a crop of honey as at present. Usually one-half of the crop is stored at this date, but many good colonies to-day will starve if not fed. Rains, winds, and cold weather are too great obstacles for Carniolans even, to overcome.

Roaring Bees.—Samuel Wilson, Cosby,o+ Tenn., says:

In reply to Mr. Demaree's request, I will say that I have wintered bees on the summer stands for nine years, and when it is 20½° below zero, I find that my bees roar. The colder it is, the more they roar, from a certain degree that keeps them the most quiet.

Crop Cannot be Large.—B. A. Manley, Milo,♀ Iowa, June 9, 1887, writes:

Our honey crop in this (Warren) county cannot be large, though the recent showers may improve it somewhat. White clover is blooming profusely, but there is not sufficient moisture in the ground to give it any vitality. Of course bees make quite a show at work on these weakly blossoms—more show than honey stored. Along the streams are good linden groves, and we are looking forward to an improvement when they bloom. I think a good rain would put a new face on the matter.

Exceedingly Discouraging Prospects.—J. V. Caldwell, Cambridge,⊸ Ills., on June 10, 1887, says:

Bees here are doing little or nothing. I have not had a swarm yet, and not one of my 200 colonies is working in the sections. We are having extremely dry weather, with cool nights and north winds. Bees are in good condition, but it looks as though we will not have a pound of surplus clover honey in this locality.

Wintered on Honey-Dew, etc.—Chas. Solveson, Nashotah,⊶ Wis., on June 14, 1887, writes:

As I stated in the valuable AMERICAN BEE JOURNAL, that I put my bees away last fall upon stores composed largely of thick, black "honey-dew," perhaps some would like to know how they "pulled through" the winter. On April 8, I removed them from the cellar and found only 7 dead colonies out of 90; since then as many more have dwindled and have been robbed; this with some sales of bees and queens, leaves me with 65 colonies to begin the season with. Considering the "stuff" they had to winter on, I think they did well. White clover has been in bloom since June 5, but as yet the bees have gathered no honey, and the indications are that we will have but little surplus from clover, as it is drying up for want of rain.

My Experience with Bees.—Levi Richards, Ellison Bay,♂ Wis., on June 15, 1887, says:

I got 3 colonies of bees last fall and put them in the cellar under the house on Nov. 15, 1886, and took them out on April 26, 1887, and they went right to work on the same day carrying pollen from the poplar; and they have not been idle a single day. They have built up, and are now strong, excepting one which came out of the cellar weak, but it is doing well also, as I crowded them together in the spring, and now I have but two frames more to put in, then it will be strong also. I think that here is a good place for bees, for we have plenty of poplar, willow, maple (soft and hard); also some kind of willow which blossoms now, that looks more like maple. Then we have linden and white clover which is now just commencing to bloom, and the country is just full of raspberries and blackberries, but I am a beginner and have to learn much yet. I have 1 colony of hybrids, and 2 of Italians. We have had but little rain this spring, so it is pretty dry. There are no bees nearer than 16 miles from me.

Bees Roaring in Winter.—A. D. Keller, Firth,⊶ Nebr., on June 7, 1887, says:

This is my seventeenth year in bee-keeping, and I have kept from 5 to 626 colonies at different times. Of late years I have wintered them on the summer stands, placed very close together in rows, and packed with chaff, straw, etc., with a ventilating tube in front of the hives. If there was any hum or roar I certainly could have heard it very distinctly, by placing my ear at one end of this long ventilating tube. But I did hear something, and this is what I heard when the temperature was slightly below zero: A low, gentle hum, and the colder the louder. From zero to 30° or 40° above, not a sound could be heard; from 40° above, and warmer, a loud hum could be heard, the warmer the louder. If my bees had not been packed they would have commenced to roar before it became so cold. Thus we see the difference of opinion.

Poor Prospects for a Good Crop.—12—Mrs. A. B. Winder, (50), Grand View,⊶ Iowa, on June 12, 1887, writes:

Our long drouth was broken to-day by a very welcome rain of three hours' duration. I fear it has come too late to benefit the bees very much, as the white clover has about all dried up. I had 53 colonies put in the cellar on Dec. 8; they wintered well with the loss of only one colony. I have lost one since putting them out, and sold one, which leaves me 50 to begin the season with. They are all strong in numbers, but short of stores, as they have not gathered honey enough to keep them. I have had to feed them. The prospects for a good crop of honey this year are very poor. Last year I got 4,000 pounds of honey from 43 colonies.

Plenty of Bees, but no Honey.—M. S. Roop, Council Bluffs,♀ Iowa, on June 10, 1887, writes:

Bees wintered very poorly in this part of the country the past winter, and the prospects for a honey crop appears to be slim. We have had but two good showers this spring. White clover is about all dead. Our only show is for a fall honey flow. Basswood is very uncertain here. To-day our hives are full of bees, and nothing for them to eat.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Prices are about 10@12c. for comb. Extracted, 5@7c., according to quality and packages. Stocks and demand light.

BEESWAX.—22c. R. A. BURNETT,
June 9. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5@5¼c; light amber, 4¾@5c.; amber, 4¼@4½c. Comb, white, 12@14c.; amber, 7@10c. Demand very good.

BEESWAX.—22@24c.
Jun. 13. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@8c.

BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ½ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4½c. Market quiet.

BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; in white in kegs and barrels, 6@6½c.; dark, 4 to 4½c.; amber, in barrels, 4½@5c. Demand limited and supply small.

BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@6c. Sales large and demand good.

BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Market almost bare of comb and extracted honey.

Jun. 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.

BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

The Production of Comb Honey, as practiced and advised by W. Z. Hutchinson, can be obtained at this office, for **25 cts.**

◆

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50.**

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

◆

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **7 cents** per lb. Orders solicited.

Advertisements.

FOR SALE CHEAP.—One GIVEN'S FOUNDATION PRESS and FIXTURES complete. Nearly new, and in good order.
Address, **W. C. CUMMINGS,**
24A2t BUSHNELL, ILL.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

BEE-KEEPERS—read and save Money. Sections, Crates, Frames, Foundation, Hives, etc. Sections, $3.50 per 1,000. Send for Price-List. **C. MATHEWS,**
23A4t IMLAY CITY, MICH.

BROOD-COMBS for Sale.—500 Brood-Combs built on full sheets of foundation in Heddon-Langstroth reversible frames, 1 and 2 yrs. old. All in good order, cheap. For price, address—J. H. M. Cook, Caldwell, N. J.
25A2t

CARNIOLAN QUEENS ONLY;

BRED in large apiary of Carniolan Bees, from Benton Select Imported Stock—$1.00 each. Carniolans are the gentlest and best honey-gatherers known. Send for Circular describing Carniolans. (Mention this paper.)
S. W. MORRISON, M. D.
25Dtf Oxford, Chester Co., Pa.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

DESIRES to call attention to the typographical neatness and "get up" of his little book,

"THE PRODUCTION OF COMB HONEY."

It is printed from new type (brevier); the matter leaded; the paper is heavy, delicately tinted and super-calendered; and the press-work is a "credit to the craft." But it is the cover, which is bright-yellow card-board passed through a comb foundation mill, that has brought forth the most enthusiastic enconiums. The work is very nicely done, and, at the first glance, the cover would almost be taken for foundation; while the beautiful twig of basswood upon the back of the cover and the artistic lettering upon the front, printed as they are upon a corrugated surface—all combine to give the book a peculiarly neat and tasty appearance.

Dr. A. B. Mason writes:—The cover is nice, printing *fine*, and contents *grand*.

Dr. C. C. Miller says:—Nothing less than a genius would have gotten up that cover.

E. Kretchmer says:—It is a surprise, in style of workmanship. Nothing could be added to improve it.

Louis Werner writes:—It is the best bee-book I ever had, and I do not see how you can print such a neat book for so small a price.

James Heddon writes:—Your book is a "dandy" The "get up" is nowhere equaled. You have outdone us *all* on the book problem, and I am *glad of it*.

Chas. Dadant & Son write:—The book is at hand, and though we do not agree with all it contains, we must say that it is as neat and tastefully gotten up as anything we ever saw.

The *Bee-Keepers' Magazine* says:—"The Production of Comb Honey" is the title of a unique little work of 45 pages, by the pen of W. Z. Hutchinson. Mr. Hutchinson struck a happy idea when he designed the cover of his work.

Prof. Cook offered congratulations again and again, saying:—It is decidedly the most unique little thing I have seen in a long time. Why, that cover *alone* ought to sell it, to say nothing of the good things *inside*.

The above are fair specimens of scores of similar testimonials that I have recieved, *unsolicited*.

☞ Reader, if you wish to see a little typographical "gem," send 25 cents for, "The Production of Comb Honey."—Stamps taken; either U. S or Canadian. 25Atf

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25**. Liberal discount to dealers and to clubs.

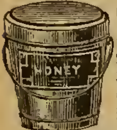
A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

100 Colonies of Italian Bees,

Strong, first-class in every respect, For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

PATENTED JUNE 28 1881

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis

PATENTED JUNE 28 1881

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
16A12t

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

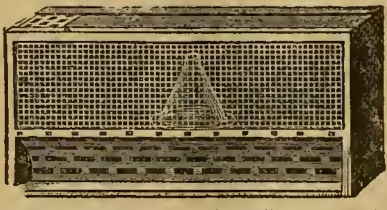
SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

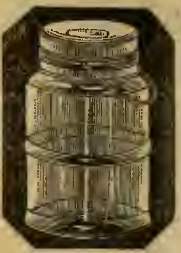
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	$1.60
" 2 pounds " "	.....	2.00
" 3 " " "	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Alley's Queens!

Warranted, $1; Select, $1.25; Tested, $1.50

How to Get Comb Honey, 20 pages, 10 cents. Address, **HENRY ALLEY,**
25Atf WENHAM, Essex Co., MASS.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

COMB FOUNDATION.

DUNHAM Brood Foundation, 40c per lb; Extra-Thin Vandervort Foundation, 45c. per lb. **WAX** made into foundation for 10 and 20c. per lb. **Ten** per cent. discount on all orders received before the 15th of April. **Samples free.** F. W. HOLMES,
9Dtf Coopersville, Mich.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in 1 piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**
14 *oz.* **Glass Jars $5.25** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case. Send for Catalogue.*

A. O. CRAWFORD,
Box 428, South Weymouth, Mass.
21D10t

EXTRA NICE

SECTIONS and **Foundation** at reduced prices. Send for samples.

Also a full line of SUPPLIES at very low rates. Price-list free.

☞ **Cash for Beeswax.**

A. F. STAUFFER & CO.,
3Dtf STERLING, ILLS.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

ITALIAN Queens by return mail: Tested, $1; Untested, 75 cts. Two-frame Nuclei, $1.50; 3-frame, $2. BEES by lb., 75 cts.
21Atf **GEO. STUCKMAN, Nappanee, Ind.**

A GREAT SCHEME! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,
J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

12 Inch, Price, $30.00.

Vandervort Foundation Mill.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. June 29, 1887. No. 26.

Dare to do Right! Dare to be true!
You have a work that no other can do;
Do it so bravely, so kindly, so well,
Angels will hasten the story to tell.

Dare to do right! Dare to be true!
Other men's failures can never save you;
Stand by your conscience, your honor, your faith,
Stand like a hero and battle to death.

◆

Our Homes are Like Instruments of Music. The strings that give melody or discord, are the members. If each is rightly attuned, they will all vibrate in harmony; but a single discordant string destroys the sweetness.

◆

It is the Duty of every bee-keeper to do all that is possible to strengthen the honey market, and to create an increased and steady demand for pure honey. This should begin at home, like charity, and then extend as far as the influence of each apiarist goes. We commend the following idea from a correspondent. He says:

> All around nearly every apiary—may we not say around *every* one—there are numbers of families which never, or seldom use honey. A little well-directed effort, therefore, could increase the consumption right at the bee-keeper's door. Instead of looking to the distant markets of Chicago, New York, or any other place, he could probably find one at home.

This "home market" should be created, and then fully supplied with this delicate food. As a guaranty, or to inform every buyer where more can be obtained, put a neat label on every package. In no place, either in city or country, is the demand for honey what it should be; it therefore behooves every apiarist to create a market and hold it by fully supplying it.

◆

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Nothing but Gas!—A stupid article appeared in the *Cultivator and Country Gentleman* for June 2, 1887, under the heading of "Extracted Honey," and signed, G.A.S.—evidently written by some blatant *gas*-bag!

The "Wiley lie" about "manufactured comb honey," having been demonstrated to be a falsehood from whole-cloth, without either "warp" or "woof" of truth, this *gas*-conader tries to show that the bees are given "sugar and water" to store in place of honey, and that such is sold for "honey in the comb." This is what he says:

> Many buyers still think that honey in the comb must be pure, because it has been demonstrated that comb honey cannot be manufactured by artificial means. The general buyer, having no acquaintance with bees, does not know that bees may be made a party to fraud and swindling—that they will store equally sugar and water as carefully as the finest honey gathered from flowers, but they may be made such a party, and they will surround a saccharine compound with comb, even more beautiful, at least whiter, than that built for honey.

Any falsehood will pass current if it will injure apiarists. Does not this gas-blower know that "sugar and water" is *not* honey, and will very soon become *sour*, and that no one could be deceived enough to call it honey?

Mr. E. E. Ewing, of Rising Sun, Md., sends us another copy of that paper with this written upon the margin: "This is the kind of stuff that many of our leading agricultural papers publish!" Yes; that is true—astonishingly true!

What perfect nonsense is contained in the following paragraph from the same article by our *gas*eous friend:

> The two-story hive, with a set of frames like the brood-frames in the second story, is considered a good machine for extracted honey, but experience has taught many bee-keepers that the shallow frame, half the length of the brood Simplicity frame, is a better implement.

Brood-frames are "*a good machine* for extracted honey." How astonishing is such an announcement! But what sublime nonsense is contained in the latter part of the quotation: It says "the *shallow* frame, half the *length* of the brood Simplicity frame, is *a better implement!*" Wonderful gas-bag! Marvelous "shallow"-back, "half-length" double-ending implement! Astonishing revelation, with meaningless words and more absurd ideas! So try again, G.A.S. Meanwhile—Ta-ta!

◆

The Home on the Farm is our beau-ideal of living. It is true that our cities are established by "brain and muscle, energy and grit," but this is no less true on the farm, which is or should be "enriched by domestic love, and genuine peace and contentment." We always think of it as a "miniature heaven, where the mother-angel presides, supported by the strong arm and loyal heart of the president, controller, banker and treasurer, all combined in one." What a genuine contrast to the fight-for-life in the busy, fuming and crowded city! And yet the farmer and city-toiler are continually changing places—each one being enamored of the other's pursuit.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

Happy Now may be the bee-keeper who has a good patch of sweet clover either on his land or by the roadsides. This and other fall flowers appear to be the only hope for surplus honey for this season in many parts of the country. Prof. Cook, who has grown sweet clover (*Melilotus alba*) for many years, gives his testimony on its value in the following words:

> Sweet clover is beautiful, both in foliage and blossom. It is much superior as an adornment of the roadside to either rag or May weed. It is a most excellent honey-plant, comparable to white and Alsike clover, or to basswood, in value. It is slow to expand, and in meadow and pasture is soon choked out by our cultivated grasses. When once in possession of a spot, it is easy to extirpate it, if it is desired to do so. As is well known, sweet clover is a biennial, and so must come from the seed once every two years. The plants grow from seed one year, and the next year blossom and die.—Thus we have only to cut the plants while in bloom before the seed matures, to extirpate the plants *in toto*. Two such cuttings in adjacent years will do the work most thoroughly. In view of all these facts we can hardly find a more safe and valuable plant for waste places, and for roadside planting. Farmers should encourage its growth both for its beauty and worth.

In view of the fact that almost every other source for honey so far has failed this year, can there be any better advice given to bee-culturists than to *plant liberally* "in, around and about" their apiaries that excellent honey-producer—*sweet clover*?

Happy indeed is the apiarist who has an abundance of it now; while those who have neglected to follow our advice for years on this subject, are now mourning because of their lack of surplus honey!

◆

Do Not Send diseased brood of any kind through the mails. It is a dangerous practice, and very disagreeable to the person who receives such packages. We always burn up such packages as soon as possible after receiving them, being glad to get them out of the way. We hope our friends will not send us any more. It is quite enough to *describe* them. Some time since a man brought a frame of such to a convention, and handed it all around for examination. That was a very dangerous experiment, and should never be repeated.

◆

Honey-Cake.—Here is a recipe for honey-cake furnished by Mrs. J. M. Johnson, of Saratoga, N. Y., which she says is nice while "warm for tea," or "equally good when cold:"

> One-half cup of honey; one-half cup of sugar; one-half cup of butter; one egg; two cups of flour; one cup of cold water; two tea-spoonfuls of baking powder. Flavor with lemon or vanilla. This recipe will make one large loaf, or can be baked in gem-pans.

◆

From the Hut to the Pantheon, is a study in the evolution of architecture, treated with Prof. Huxley's well-known charm of style, in the *Youth's Companion* for last week.

◆

Basswood in this latitude has just commenced to yield honey, but it is too early yet to say anything about the crop from it. In places further south, the bloom has "come and gone," and it was of very short duration, and deficient in nectar.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Experience with the Drone-Trap.

Query 436.—What has been your experience with the Alley drone and queen-trap? Last season I put one at the entrance of a box-hive, and at night I found the bees all outside, and the comb all broken down in the top of the hive. I transferred them to a Simplicity hive, and they have done well, filling up the hive, and also another of the same size on top.—W. C., New York.

We do not use drone traps.—DADANT & SON.

I have had little experience with it, none of which has been like yours, however.—G. M. DOOLITTLE.

All traps of this kind have objections, but very often as a choice of evils they have to be resorted to.—J. P. H. BROWN.

I have never used a drone-trap. The way in which you used it may have interfered with the proper ventilation of the hive.—W. Z. HUTCHINSON.

I have used it with the best of results. It must be used with judgment, and not become filled, for if allowed to do so like results will happen.—H. D. CUTTING.

I have used the Alley drone and queen trap, and a somewhat similar one made by myself of perforated zinc, with entire success. The bees were not disturbed by it, and they seemed to work as well as when it was absent.—A. J. COOK.

I have had them in use only a short time, so that I can say but little from experience. As yet, no such bad results have occurred from the six I have in use.—C. C. MILLER.

I have examined Alley's drone and queen trap, and can give no reasons why it will not do all he claims for it. Still, I have not tested it in a practical way. I have found the perforated zinc so useful in the apiary, and have used it to good advantage in so many ways, that I have no doubt but the Alley arrangement will work well in the hands of a person who knows how to use it. I have no doubt but you smothered your bees in your tight box hive until they were compelled to leave the hive or perish.—G. W. DEMAREE.

I have used Alley's drone and queen trap to some extent since it was first made, and it has worked well with me in every instance. I think well of it, not only to prevent swarming by confining the queen, but also as a means of selection of drones for mating purposes when rearing queens. In the case mentioned above the probability that the use of the trap caused the bees to become excited at a time when too little ventilation was given.—J. E. POND.

My experience with the Alley drone and queen trap has shown it to be a valuable invention. In the case mentioned, the hive had not sufficient ventilation, which the bee-keeper should have perceived, and remedied when the trap was placed over the entrance of the hive.—G. L. TINKER.

The fault must have been in the way you used it. As the bees were "all outside," it shows that the ventilation was interfered with by its use in some way.—THE EDITOR.

Bees Reared in Old Combs.

Query 437.—Can bees develop perfectly and afterwards make as perfect bees reared in "combs 15 or 20 years old," as some claim to have them? This query alludes to Query 409.—California.

Practically, they can.—C. W. DAYTON.

As far as I have been able to discover, they can.—G. M. DOOLITTLE.

I find them to develop perfectly, and but a little smaller than those reared in new comb.—J. P. H. BROWN.

I have no combs so old, but bees hatched in those 12 years old, seem as perfect as those reared in new combs. —W. Z. HUTCHINSON.

I have never noticed any difference between bees reared in such old combs, and those reared in new ones. —C. C. MILLER.

Yes, I have seen bees of the normal size reared in combs that were 30 years old. After bees emerge from the cells it is several days before they attain their full size.—G. L. TINKER.

We think that any cell in which the queen can introduce her abdomen and lay eggs, is large enough to rear worker-bees. When the cells are really too old, she does not lay in them.—DADANT & SON.

They have in our apiary. I have combs now in use that were in use in 1878, surely, and I see no objection to them as brood-combs.—A. J. COOK.

According to my experience and observation, yes. I have seen bees hatched from very small cells that looked to be under the usual size when they first emerge from the cells, but in two or three days they were as large as other bees of the same strain. Still I doubt if it is good policy to use such combs as long as comb foundation can be had at reasonable prices. —G. W. DEMAREE.

I must answer yes, from my own experience. I have some combs in my bee-yard that are 19 years old, and I see no difference in quality or size of the bees reared in them from those reared in comb only a year old. The cocoon-lining left in the cells is so minutely thin as to be hardly perceptible. Perhaps comb 50 years old might bring out smaller bees than is usual; but where shall we find comb of that age?—J. E. POND.

Yes.—THE EDITOR.

Natural Swarming and Unsealed Honey.

Query 438.—1. Will bees swarm naturally without unsealed honey in the brood-chamber? 2. Will they uncap old honey to swarm on?—A. F., Calif.

1. Sometimes. 2. Yes.—C. W. DAYTON.

1. I never knew them to do so. 2. They do not swarm unless honey is being stored; hence there is no necessity for uncapping old stores.—W. Z. HUTCHINSON.

1. I do not think bees will swarm naturally without unsealed honey. 2. They will, provided circumstances compel them to swarm.—H. D. CUTTING.

I have yet to see a brood-chamber with brood and bees in it without unsealed honey, unless the bees are in a starving condition.—G. M. DOOLITTLE.

1. In my experience they have not. Bees only swarm for me after a honey-flow begins, when there will be more or less new honey in the combs.—G. L. TINKER.

A hive that contains sealed honey also has some cells unsealed, and a swarm may issue naturally, without apparently any unsealed honey in the combs. Bees, before leaving as a swarm, always fill themselves with honey, and if they find not sufficient uncapped, they will resort to the sealed.—J. P. H. BROWN.

I think they usually have quite an amount of unsealed honey. They always do when breeding rapidly, and they should be breeding rapidly at the swarming time.—A. J. COOK.

1. A prime swarm is not likely to come off at any time when honey is not yielding, and at such time there will always, I should think, be unsealed honey present. Still, there is no telling what bees may do. 2. I should think they might, but I am only guessing.—C. C. MILLER.

Bees will swarm when the fit seizes them, sure. As to the particular point inquired about, I have had no experince. I think, though, that as a rule, unsealed honey will be found in the hive a swarm issues from, as they usually swarm during a honey-flow. I have caused swarms to issue by pouring warm honey or syrup into the hive on top of the frames with a sprinkler.—J. E. POND.

As a rule they do not, but there are exceptions to this rule, as well as to most other rules, I presume. I have had bees to swarm after the honey season had been over long enough to have no sealed honey in the hive except the daily supply of uncapped honey always on hand; but such swarms is the result of a determined effort to supersede the queen, and such swarms will sting everything in sight, because most of the swarms go out empty. If only a few bees in a swarm go out empty, they will be cross when hiving them. 2. I have never known them to cuncap honey to carry it away when swarming in the natural way.—G. W. DEMAREE.

Bees swarm naturally during a honey-flow; and as they fill themselves with honey before swarming, there will always be some unsealed honey left in the hive.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near tne center of the State named; ♁ north of the centor; ♀ south; O+ east; +O west; and this ♂ northeast; ↖O northwest: O↘ southeast; and O↙ southwest of the center of the State mentioned.

Official Report of U. S. Entomologist.

Report of Apicultural Experiments.

N. W. M'LAIN.

[The following is an extract from the Official Report of Mr. McLain to the United States Entomologist, for the year 1886, and now just issued by the Department of Agriculture, at Washington, in its "Reports of observations and experiments in the practical Work of the Division, made under the direction of the Entomologist."—ED.]

BUILDING UP COLONIES IN SPRING.

For preventing spring dwindling, and building up colonies to maximum strength and efficiency at the beginning of the working season—for success in honey-producing largely depends on having strong colonies ready for work at the very time when efficient work may be done—I prepared a bee-food containing the elements essential in brood-rearing. This food is prepared after the following formula:

To 10 pounds of sugar I add half a pint of dairy salt, 2 table-spoonfuls of bicarbonate of soda, 2 table-spoonfuls of rye flour, 2 table-spoonfuls of finely powdered bone-ash, and 1 table-spoonful of cream tartar. Mix thoroughly, then add 2 quarts of hot water, and stir until thoroughly dissolved, and let the mixture boil, but only 2 or 3 minutes. I feed this food in the hive as honey or syrup is usually fed, thereby keeping all the bees at home to aid in keeping up the temperature in the hive, thus reserving their vitality for performing the functions of brood-rearing, instead of speedily wearing out their remaining strength in roaming the fields in search of the elements essential to larval growth.

The bone ash is prepared by burning dry bones to a white ash, which I pulverize and sift through a sieve made from fine wire strainer cloth. As this food is not intended for use until after the bees have had a good flight in the spring, almost any grade of sugar or dark low-grade honey may be supplied for brood-rearing.

The rapidity with which a colony consisting of a mere handful of bees may be built up to full strength and working efficiency by using this preparation is surprising. Only as much as is needed for immediate consumption should be frequently supplied, and it should be fed only to prevent spring dwindling, or when it is desirable to quickly increase the numerical strength of the colony in anticipation of a honey harvest, or to recruit the vigor and strength of the colony by rearing young bees after the working season, and prior to going into winter quarters.

PREPARING BEES FOR WINTER.

Bees instinctively begin to make preparations for winter somewhat earlier in the season than is commonly supposed. In preparing for winter, as in all other matters relating to bee-keeping, the apiarist should see to it that the method of management is as nearly as possible in agreement with the instinct and habits of the bee. When bees build their combs after their own design, as in box-hives, spaces are left between wide enough to admit of elongating the cells in order that a large share of the winter stores may be placed in the top of the hive, easily accessible in the severest weather. I find it a good practice to widen the spaces between the comb frames near the close of the honey-gathering season, in order that the bees may, by elongating the cells, place a large share of the winter stores above the cluster.

As soon as the storing of surplus honey is done the condition of every colony should be examined, the amount and character of the winter food ascertained, the number of comb frames, and the size of the apartment should be determined by and adapted to the wants of each colony. After the supply of winter stores has been equalized among all the colonies, if the supply is insufficient, feeding should be done before the advent of cold nights.

Bees expected to perform the function of hibernation should not be too old nor yet too young. Both queen and worker bees should be in full physical vigor. The bees constituting the colony, when placed in winter quarters, should be such as are hatched after the midsummer working season is past, and before the bees cease flying freely in the fall.

Towards the close of the working season the workers instinctively cease stimulating the queen for oviproduction; gradually the bees cease flying, and the cluster is formed for winter. After the cluster is formed the colony should remain undisturbed. If the bees are to be packed on the summer stand, the work should be done with care, and without disturbing the bees, and before the temperature at night reaches the freezing point. If the bees are to be placed in a clamp, or in a cellar or winter repository, great care should be taken not to disturb the cluster when the hives are removed from the summer stand. I have found woolen quilts or woolen blankets the best covering for winter. Wool, better than any other material which I have tried, prevents the radiation of heat, and permits the escape of moisture, thus securing warmth and dryness. Hives should be placed 18 inches above the bottom of the cellar or winter repository, and in tiering them up one above another it is better that they rest on a rack prepared for the hive rather than one upon another.

My report for 1885 covers the period from June 1 to Nov. 25, when the severity of the weather forbade further out-of-door experiments. As nearly all the colonies in the apiary had been subjected to very frequent, almost daily, disturbance and annoyance incidental to the experimental purposes for which they had been used, they were, almost without exception, in very poor condition for passing into winter quarters. November 25 I packed 20 colonies for out-door wintering. Notwithstanding the lateness of the season, and the altogether unsatisfactory condition of the bees when packed, 18 of the colonies wintered fairly well. These 20 colonies were provided with dry sawdust packing 8 inches thick on the sides, and covered with a quilt and dry forest leaves to the depth of 8 inches on top of the frames. A rim 2 inches wide is placed under the body box of the hive, making a 2 inch space under the bottom-bar of the comb frames. A covered tunnel leads from the hive-entrance through the packing. This packing is left on the hive until warm weather is assured, thus guarding against danger from chilling of the brood when building up the colonies rapidly in early spring. The hive should incline from back to front, permitting the moisture to flow out at the entrance.

I placed 10 colonies in the cellar from which the hive covers were removed and the frames covered with woolen and cotton quilts. These were used for observation and experiment during the winter. Eight or 10 came through the winter alive, but being subjected to a wider range of temperature, and being very frequently annoyed and disturbed, their vitality was very low, and the old bees, of which most of these colonies were composed, fell easy victims to spring dwindling.

HIBERNATION.

For the purpose of determining the degree of temperature in a dry cellar necessary to secure the minimum of functional activity within the hive during the period of hibernation, I framed comb frames across each other at right angles, and into these frames I fitted and fastened combs filled with choice sealed honey. These were suspended in hives having glass sides and top, exposing the cluster to view from all sides and from the top. Removable wooden doors covered the glass.

My observations covered a period of ninety days from Dec. 1, 1885, and include a range of temperature from zero to 65° Fahr. The hives were placed in a dark apartment, and an oil stove with a radiator was used for heating. Different degrees of temperature were maintained for several consecutive hours, and, as occasion required, for consecutive days, and careful observations were taken.

At a range of temperature from 48° to 52° Fahr., according to the humidity of the atmosphere in the cellar, bees, according to a rule of nature, enter into the hibernating state. After repeated trials over a wide range of temperature, at 41° Fahr., I found the shape of the cluster most permanent. While that degree of temperature was maintained, little change in the shape or location of the clusters could be seen, and functional activity on the part of individual bees, and of the whole colony as well, seemed to have reached the minimum degree of manifestation, even respiration seemed to be suspended. The change in the form of the cluster was determined by outline drawings on paper. The colonies presented substantially the same outline for days together when a uniform temperature of 41° was maintained. I placed some colonies in a darkened building late in the fall of the year, and when the temperature was 40° Fahr. natural heat on a dry day above the ground, the same phenomena were observed.

The temperature of the cellar was lowered by admitting the air through an outer room, so that no perceptible currents entered the apartment where the bees were kept. The degree of unrest and activity increased in proportion as the temperature neared the zero point. Thirty-seven degrees Fahr. in a very dry cellar is a danger point, the danger increasing in proportion as the temperature is lowered or the humidity of the atmosphere is increased.

The degree of activity shown by bees when the temperature in the repository or cellar is 44° Fahr., is not much greater than at 41°, all other conditions being the same.

At intervals of about one week the bees arouse to activity, the form of the cluster changes, and after three or four hours of cheerful and contented humming, having in the meantime appeased their hunger, the cluster is reformed into a compact body, the humming ceases, respiration becomes slow, profound silence reigns in the hive until change of temperature or the demands of hunger rouse the bees from the coma in which they have been bound. The more perfect the conditions for hibernation the longer the periods of inactivity.

As the activity of bees is not much greater when the temperature in the cellar or repository is steadily maintained at 44° than it is at 41°, and as 41° is too near the danger point, I find it safer to keep the temperature in dry winter repositories, whether above or below the ground, at 44° Fahr., and I find it better that the variation from the standard degree of 41° Fahr. should be in proportion of 2° above rather than 1° below. If the repository be damp a degree of temperature higher in proportion to the dampness should be maintained. The hive should incline from back to front, and the entrance should be left wide open.

It has been the practice of many to raise the temperature in winter repositories in order to stimulate breeding toward the close of the hibernating period. I have tried this, and in my experience I find it better to maintain as nearly as possible an even temperature until the bees may be safely placed on the summer stands. What is gained in early breeding is more than lost in the waste of vitality on the part of the older bees. In the case of bees wintered on the summer stands or in a clamp, the packing of dry forest leaves, chaff, or sawdust placed above the quilt should be closely packed about the edges, and should be from 7 to 12 inches in thickness. Indeed, it would be difficult to get the packing above the cluster too deep, provided the ventilation above the packing is sufficient to carry off moisture.

For the American Bee Journal.

Bee-Territory for Bee-Keepers.

OLIVER FOSTER, (296—298).

I have just read Wm. F. Clarke's article on page 377, about "Legislation on Priority of Location," and it seems to me that he presses his point rather strongly with regard to Dr. Miller's position regarding "priority." I have probably not read quite all that has been published on this question in the various bee-papers, but if I have understood Dr. Miller's position from first to last, I heartily agree with him, although it seems to me his position has never been clearly defined. As I am neither a lawyer, nor the son of a lawyer, and know but little about civil government, I have taken no part in this discussion; nor shall I now, as far as it relates to legal practicability; but what I would like to see, I will try to imagine as follows:

Let the authorities of Linn county (in which I reside) assume the control of the territory of the county as far as bee-pasturage is concerned, in something the same way that a patentee assumes the control of his territory as far as his patent is concerned—the authority being derived from government. Let it be advertised several months in advance, that the county will be sold upon a certain date by townships as bee-keepers' territory, for a term of years (say 10 years) to the highest bidders, with certain regulations and restrictions, one of which might be that all present owners of bees may have the privilege of keeping their present number of colonies by paying to the owner of the township in which their bees are kept, a specified tax per colony, which should be something more than the price paid for the township, divided by the whole number of colonies in it.

Other regulations may be added if necessary to secure perfect justice to all. Any new party wishing to keep bees could purchase a limited right to do so from the owner of the township, provided that the owner chose to sell such right.

If some such legislation were practical, though I fear it would not be, the enterprising specialist would "bid off" his own and adjoining townships. He could then safely invest in artificial pasturage, and in permanent buildings and appliances. Should the foul brood scourge invade his territory, he could fight it with some hopes of conquering. He could control the blood of his bees, breeding up improved strains to an unlimited state of perfection.

If we undertake to buy up all the bees in box-hives in our neighborhood, we will probably find parties who can sell us more such bees than we can buy, and at a high price; and we may also find the same spirit an obstacle to the successful treatment of foul brood, or the introduction of improved blood.

If there would be any injustice to any one in some such legislation as the above for bee-keepers, I fail to see it.

Mt. Vernon, Iowa.

For the American Bee Journal.

The Non-Use of Comb Foundation.

JAMES HEDDON.

This question is the one great one which Mr. Hutchinson and Mr. Doolittle have the honor of bringing to the front. In his little book, Mr. Hutchinson has treated the subject in a comprehensive and masterly manner. It seemed to be left to Mr. H. to deal with the principles which make the non-use of full sheets of foundation in the brood-frames a success or failure.

By way of digression, allow me here to say that I consider Mr. Hutchinson's book the work of a master, and an intensely practical treatise—one that hinges on close to dollar-and-cent success in our calling. Further, I wish to publicly recognize his rigid integrity in giving credit where he believed it due. But to return to the question in hand:

I will say that years ago I found that *all* that was claimed for comb foundation as a labor-saving material was not true; that there were some hidden principles somewhere in the problem that offset much of the supposed and claimed value of foundation as material for the bees. I found that in some cases, under certain conditions, the use of full sheets of foundation paid a handsome dividend on the investment; while in others it seemed to be almost of no advantage.

I have used full sheets of foundation in the sections for many years, and also full sheets of foundation in the brood-frames ever since the "wiring system" came about, and I am still adhering to such use, except as I am experimenting in keeping with Mr. Hutchinson's teachings, as laid down in his book and other writings. The results of my experiments I will publish in this paper (with the consent of the editor) in the near future. It is a matter of great economy to know how to get as nice, straight and all-worker combs, and fully as much or more surplus honey with the use of only guides in the brood-frames.

NARROW GUIDES IN BROOD-FRAMES.

Just here I wish to touch a subject which, so far as I have read, has been neglected by all writers, myself included, although for years I have argued it to my customers who come here in person. It is, that narrow guides for brood-frames are much better than wide ones. After I once abandon the use of foundation for a labor-saving material, by no means will I ever use the foundation guides more than ¾ of an inch wide. If we use them 2 inches wide, although the upper edge fastened to the top-bar must remain as straight as it was put on, the lower edge will warp and curve, so that the comb will not be as straight as though the guide had been but three rows of cells wide, in which case the whole strip, if not of too thin foundation, will remain rigid and straight.

Please experiment with both 2-inch and ¾-inch guides in brood-frames, and see if you do not find this just as I did eleven years ago.

Dowagiac, 9 Mich.

For the American Bee Journal.

Bee and Honey Shows.

MARK THOMSON.

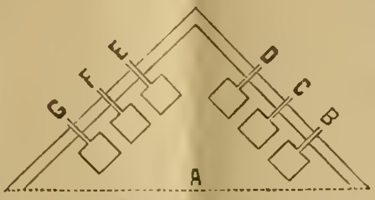
The Stark County, Ohio, Agricultural Society, at the solicitation of the Stark County Bee-Keepers' Society, has appropriated $100, to be given as premiums for bees, honey, supplies, etc., and has also consented to spend $150 for a building specially for the display of these things. A committee was appointed by the Bee-Keepers' Society to select a plan for said building.

Being aware that the Editor of the American Bee Journal has had much experience (as well as world-wide observation) concerning the exhibition of bees and honey, we desire that he shall give through the Bee Journal, for the benefit of others as well as ourselves, some suggestions in regard to a plan for such a house or building, with a place partitioned off in which we may exhibit to the public manipulation with bees, with safety to the public.

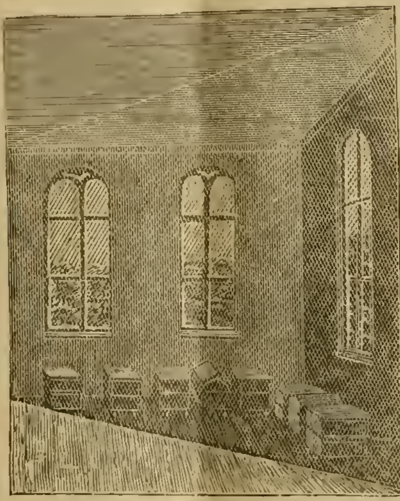
Canton, 6 O., June 17, 1887.

[The Stark County, Ohio, Agricultural Society deserves much credit for the business sagacity which provided for a "Bee and Honey Show." The officers of the St. Joseph, Mo., Exposition did the same as an *experiment* some years ago, and were *surprised* at the result. They realized the fact that it formed the greatest attraction presented at the Exposition.

There they had a building in which to display the honey and implements for bee-keepers, and one corner of it was enclosed by mosquito-bar—the hives of bees being inside, with a tube connecting with the entrances running through the sides of the building, allowing the bees free passage in and out of the hives. Manipulation or examination of the bees, may be accomplished by going inside of the netting, and no one outside need be disturbed by the bees. The first illustration shows the ground plan of the same corner: A shows the netting; B, C, D, E, F, G shows the entrance tubes to the hives.

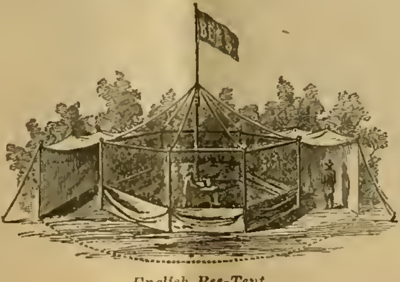


Corner of Building showing Entrance-Tubes



Corner of Building enclosed with Netting.

When in Great Britain, during the summer of 1879, we found that the most attractive features of the fairs were the public manipulations with bees, and the large display of honey of captivating beauty. There they had a large tent; the inner circle being enclosed by mosquito-bar or netting around the sides, and about 8 feet high, leaving the top entirely open. Around this circle is a passage-way, covered with canvas above and outside, about 8 feet high, and 6 feet broad; in this inclosure the audience assembles to witness the manipulations with bees.

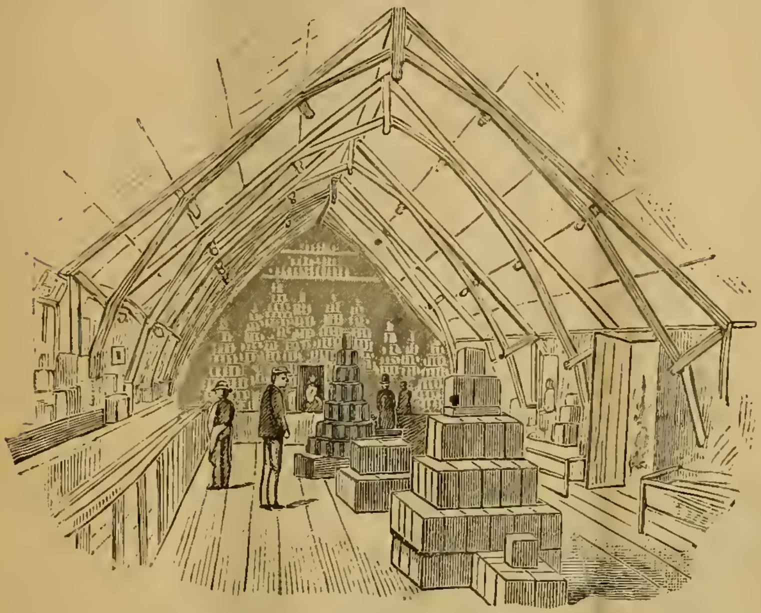


English Bee-Tent.

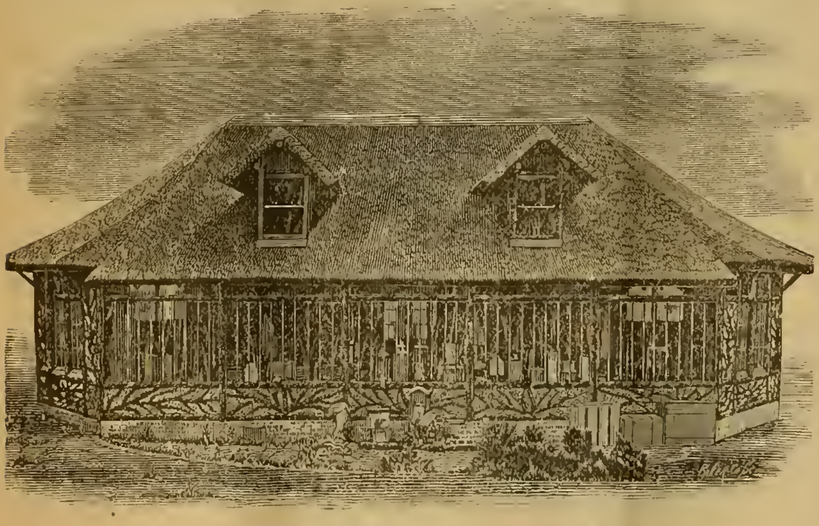
We gave eight half-hour lectures in this tent; each time the inclosure was full of eager listeners. Two of these were delivered at the Scottish Bee and Honey Show at Perth, concerning which the Dundee *Advertiser* remarks: "The manipulating tent was a scene of great interest during the show. It is of octagon shape, the operator standing in the middle, while the public feel secure under the protection of an intervening gauze screen. Driving bees from a straw skep and transferring their combs to a bar-frame hive, were hourly operations, and never failed to strike with astonishment the spectators, who stood aghast at seeing a human being unprotected turning up a hive of bees, and handling them as if they were blue flies. Mr. Thos. G. Newman, editor of the American Bee Journal, was present, and gave lectures on American bee-keeping, which were very interesting. The society presented to him a medal as a souvenir of his visit to this country, and for the valuable services he has rendered to the present session of the society."

For exhibiting bees, observatory hives were used—those having glass sides, through which the bees may be seen at work—the hives being inside the exhibition building, with a tube covering the entrance, and running through the side of the building, giving free passage, in and out, for the bees. Sometimes, a glass-box inclosing each frame, arranged like leaves of a book, with a common entrance to all of them, from the tube running through the side of the building, is made to exhibit bees. This gives an opportunity for thorough examination of the whole colony.

Concerning the Toronto Bee and Honey Show, Mr. Wm. F. Clarke said: "Under the stimulus of the liberal prize list, there was a magnificent array of honey. The directors appropriated an entire building to the use of bee-keepers, and for the first time at a great exhibition on the American continent, 'honey hall' advertised itself side by side with horticultural hall, dairy hall, etc. Honey was displayed in every form, calculated to make the mouths of spectators water. The tin packages and cans were gorgeously colored and labeled ; the glass jars were in various beautiful shapes, and even the wooden boxes displayed a wonderful diversity of taste. In the centre was a miniature church, ingeniously built of honey comb and wax, with pinnacles and spire. A smashing trade in honey was done at the exhibition. Thousands of people might be seen with gay-looking tin cans dangling from their fingers, or with pretty glass jars in their hands, or nice boxes under their arms. They bought and carried them home very much as is usually done with toys and trinkets on such occasions. The success of this show awakens great expectations as to the future of bee-keeping in this country."



Canadian Honey Exhibit in London, England.



Bee and Honey Pavilion at the Paris Exposition.

Of the Honey Show in San Francisco, Calif., the *Semi-Tropic* said : "The attractive display of bees and honey formed a centre around which apiarists literally swarmed. One hundred and two varieties of honey-producing flowers formed a novel and interesting feature of this exhibition. The decorations of white sage were tasteful and appropriate, and the nectar itself, in jars arranged in pyramidal shape, clear as crystal, supported by frame after frame of comb honey, snowy and inviting, made a picture which cannot be photographed except by the artist memory. There were samples of excellent honey vinegar, almost colorless, and above the average in acidity; several samples of fruit preserved in honey with undeniable success, and three kinds of honey cake, which elicited the warmest praise from those who were fortunate enough to secure a sample. Fruit cake made with honey is richer, and retains moisture much longer than that made of sugar."

The first engraving on this page shows the interior of the building in London, at the Colonial Exhibition, containing the Canadian exhibit of honey in 1886.

The second illustration shows the "Bee and Honey Pavilion" at the Paris Exposition, in which an immense "show" was made.

Read at the Maine Convention.

Points of Excellence in Bees.

WM. HOYT.

That the bees of the present time are capable of improvement, no one will deny. But just how to go to work to improve them, is a very important question, worthy of the consideration of this convention.

Having for several years given considerable thought to the matter of improving our bees, I will briefly outline a method that, if carried out by a majority of the bee-keepers, would undoubtedly in a few years give good results !

In order to go to work understandingly, the bee-keeper must have in view certain points of excellence which must be first obtained, and then retained and improved upon. In order for a bee-keeper to know what good points are already possessed by his bees, a record must be kept with each colony, and good judgment used in deciding upon their wintering qualities, disposition, etc.

The first and principal object in the keeping of bees is the production of honey, but there are several minor points that must be taken into consideration therewith. I will here introduce a scale of points, imperfect I am well aware, but it will serve to illustrate my meaning :

To every colony of bees that gather sufficient stores for winter, I would allow one point ; then for every 15 pounds of extracted honey, one more point. The next desirable quality to be taken into consideration is hardiness, and ability to stand our unfavorable winter and spring weather. Colonies that winter perfectly, and come through the spring without dwindling, should be allowed three points.

Next should come character and disposition. If a colony can be handled during the flow of honey without stinging, spread out evenly upon the combs and remain quiet while being examined; good to repel robbers and moths, and not meddlesome (that is, not attempting to rob weak colonies or putting out their keeper's eyes when unmolested), I would allow three points. Thus a colony having perfect disposition, wintering perfectly and getting 45 pounds of surplus honey, or 90 pounds of extracted honey, and having sufficient stores to winter, would score ten points.

I think that excessive natural swarming should be discouraged, consequently I would not allow any credit for swarms cast, but would commence a new account with the new colony. The bee-keeper, having kept a record with each colony for one year, is then ready to select say about 4 colonies that have the previous season scored the highest number of points from every 10 colonies, from which to rear queens and drones, two of the selected colonies to be used for the rearing of drones, and the remaining two being used for rearing queens. No drones should be allowed to issue from the other colonies selected for that purpose.

There are several methods in use by bee-keepers for rearing and fertilizing queens from those selected colonies, that will readily suggest themselves to the advanced bee-keeper; but I wish to briefly outline a method that may be of some benefit to the beginner:

The colonies for breeding purposes should be selected as early as April 12, or at least May 1, in this locality. The colonies selected for drones should be given one or more sheets of drone-comb placed near the centre of the cluster, and the bees and queens stimulated by feeding, if necessary, to get eggs placed in the drone comb as early as possible, as the drone will require about 35 days from the egg, to be of service.

I believe that queen-cells started under the natural-swarming impulse are certainly as good, if not better, than those started by any other method; consequently colonies selected for rearing queens should be brought up to the swarming point early in May, if possible, by stimulative feeding, and if necessary by the addition of brood from other colonies. Watch them closely, and about six or seven days after the eggs have been deposited in the queen-cells, remove the old queen and a few bees to a new hive, and build them up again to a full colony. In about six days after the removal of the queen, divide the old colony up into as many nuclei as you have frames with queen-cells attached. In about 26 days, or early in June, the queens will be laying and ready for use.

The above method gives the bee-keeper queens reared under the natural-swarming impulse, and all drones and queens are reared from colonies selected after a competitive trial, and must, if persisted in, greatly improve bees of whatever race or color.

For the American Bee Journal.

Foundation Starters in Brood-Frames.

FRANKLIN P. STILES.

As I have not read Mr. Hutchinson's book I cannot say to what extent he advocates the use of starters in brood-frames; but current bee-literature would indicate his total repudiation of foundation on which to hive swarms. I hardly feel like accepting the idea that one who has so readily seen through the "outs" and "ins" of the different systems of management, with the bearing they have on the producing cost, and has so graphically depicted the experience of many others, using words that exactly conveyed what they lacked the ability to express, can be unreservedly committed to this system.

That swarms can be so treated, and a larger return be realized the same season, my tests for several years with from one to twenty swarms so hived each season clearly show; but please bear in mind that it was wholly a dollar-and-cent advantage *for the season*, a system only suited to the business of honey-producing exclusively, wherein the capital and stock in trade is a fixed amount not to be extended. The advantages that have been, and can be, secured by this plan, where no permanent increase is desired, are very great; but thinking to realize these advantages, and at the same time increase the practical working value in an extension of your plant, is simply an illusion. "You cannot eat your cake and have it too."

The permanent part of an apiary can never work too perfectly if we would produce with the least labor and expense, and no combs can be obtained from starters only, that can compare with those built from foundation in wired frames. The latter are a joy and a comfort for years, facilitating the rapid manipulation of a colony, whether we handle the frames singly or the entire section, as we usually do with the Heddon hive.

Perhaps one not familiar with the Heddon hive will ask, what difference does it make if we handle the whole case of frames at once? I find this difference: Nearly all of the bees are easily shaken from a case where the combs are of equal thickness, and true, as when foundation is used, giving a clear view of all the ranges of comb; while naturally built combs (with me) are never "as true as boards," but more or less wavy and uneven with some drone-cells, though the latter, except for its rendering the combs still more uneven, is the least I have to contend against. This uneven surface enables the bees to retain their foothold, requiring more time and strength to dislodge them. If, then, we wish to examine the combs our view is greatly obstructed.

Thus two of the best features or characteristics of Mr. Heddon's invention are rendered nearly inoperative. This latter objection, of course, would not apply to a hanging-frame hive, but my experience with the Langstroth frame used with starters, has shown me that it requires far too much time to be thought of except in a limited way as an experiment.

I understand that Mr. Hutchinson cautions the convert to the doctrine of starters, to go slow by testing one or two colonies. So, if you take his advice just as he gives it, you will not "advance to the rear" to an extent to be repented of; but the universal hiving of swarms which are to become permanent colonies, on other than full sheets of foundation, I am convinced is a backward step, the recovery of which will be found expensive, slow and annoying.

Mr. Hutchinson may be well satisfied with his colonies whose homes have been furnished originally with starters, but I think that if he were purchasing those same colonies, the argument in favor of combs built from foundation would present itself, to the advantage of the seller.

Haverhill, Mass.

Farmers' Review.

Uniting Weak Colonies.

W. Z. HUTCHINSON.

The reason why bees sometimes quarrel when united, and then under apparently similar circumstances peaceably unite, is not well understood. I have frequently united several colonies during the same day, and the bees in some of the hives would quarrel, while in others "all was serene." When honey is coming in plentifully, there is usually but little quarreling. Queenless bees are much more peaceably inclined, and will readily accept a new locality, if by so doing they secure a queen. A thorough smoking repeated perhaps two or three times will sometimes take the "fight" out of the bees that have been united.

As a general thing bee-keepers do not approve of uniting weak colonies in the early spring. The disturbance and increase in numbers seems to have a stimulating effect, and brood-rearing is increased to an undue extent. The bees are all old, and soon die off under the labor of brood-rearing. A spell of cold weather chills the brood, and the colony soon dwindles away and dies. Three weeks after half a dozen weak colonies have been united often finds the new colony no stronger than each would have been had there been no disturbance or uniting. Probably the best that can be done with weak colonies in the spring, is to pack each by itself, confining the bees upon as few combs as possible. Those that live, will of course increase in numbers as the warm weather comes on, and as they become crowded for room more combs may be added from time to time. Upon the eve of the honey harvest, the weak colonies may often be united with advantage, especially so, if comb honey is produced.

In uniting, the queen and one comb of brood and honey should be left in the hive upon the old stand, with the addition of perhaps two or three empty combs. This little colony will build combs and increase in numbers, and, by fall, will be a first-class colony, while the united colonies will be first-class for storing comb honey. In uniting the colonies, the combs should be placed alternately, *i. e.*, one from one colony, then one from another and so on, as this so mixes up the bees that but little quarreling results. If honey is coming in there will be but little trouble on this score. It is when no honey is coming in that bees give trouble when uniting.

It may be asked why not unite the weak colonies when working for extracted honey? Such colonies, if furnished with combs, seem to do just about as well, according to their numbers, when run for extracted as do strong colonies, but for working in sections weak colonies are of little value.

Rogersville, Mich.

* * *

Read at the R. I. Convention.

Bees and the Production of Honey.

W. O. SWEET.

A colony of bees in complete working order consists of 15,000 to 40,000 bees. In all this multitude of industrious insects there is but one queen or mother-bee, which is the only perfectly developed female in the colony, and the thousands of workers are imperfectly developed females or heater bees. With February the queen-bee commences to lay a few eggs near the centre of the cluster of bees, first laying within a small circle in one comb, soon extending to two or three combs, and in 21 days from the laying of the egg the young worker-bee appears.

In March the circle of brood increases quite fast, and by April the maple and elm begin to bloom, then comes the first flow of honey. Within and without the hive the merry hum of the bee is heard, while load after load of the delicious nectar comes pouring in from the first flowers of spring. As the queen still enlarges the cluster of eggs extending from comb to comb, she comes to one that has much larger cells which we call drone comb, and is for the purpose of rearing several hundred drones or male bees. These neither work nor sting, but being possessed of a capacious stomach, are much disposed to eat and grow fat on honey, but their life is short, seldom over four months. The worker-bee lives but three or four months during the time of flowers, while those reared late in the season live until spring, but none except the queen live to be a year old. The queen lives to be 4 or 5 years old, so we might compare the life of the bee like that of a populous city.

"Though like leaves on trees the race of bees is found,
Now green in youth, now withering on the ground,
Another race the spring or fall supplies;
They drop successive and successive rise."

During the month of May, the season of fruit-bloom, the queen is the most active worker in the hive; hundreds and thousands of bees are hatching every day, while she is constantly traversing the combs and depositing an egg wherever a bee has hatched and left its cell.

This is the time for the bee-keepers to be busy also, for the wealth of the community begins to unsettle the kingdom, new hives must be ready for the swarms that are likely to issue, and more room given to the colony by placing on the boxes for surplus honey. By the month of June the colony is running to its utmost capacity, and if given plenty of room to store the honey, and a good field where white clover is plenty within two or three miles, they will often show wonderful results. Natural swarming takes place this month, whereby the instinct of the bees leads them to divide off and form a new colony. By conforming to the habits of the bees, this can be accomplished by dividing, which, if properly done, will be as successful as the natural process without waiting for that to begin, for where many colonies are located in one apiary, the intelligent bee-keeper can provide a large number in one day, thus saving much time and perhaps loss.

The month of July finds the hive teeming with bees, and almost filled to overflowing, while the queen is still laying eggs vigorously, for the mortality is great in the height of the season, and they literally work themselves to death. The young bee, on emerging from its cell, is rather a weakly thing, but it turns its time to good account, helping to feed the still younger bees in the larval state. After becoming a week or more old it takes the position of comb-building. It attends to this kind of work until old enough to fly, which is in about four weeks. When six to seven weeks old it becomes a honey-gatherer for the rest of its life.

During August the condition of the colony remains about the same, and September finds it active as ever, but the queen is now gradually diminishing the number of eggs, and with the bloom of goldenrod and wild asters, the honey season is about over. Atmospheric conditions have much effect on the honey harvest throughout the season; for instance, when the wind is east, little or no honey is secreted in the flowers, while if the wind is in the south, with moist air, the flowers are again yielding honey. When we have occasional thunder showers then is the greatest secretion of honey. As the honey harvest from any particular bloom is always of short duration, the intelligent bee-keeper will study to make the most of it, so by using the honey extracted at these times, with plenty of empty combs on hand to fill, so as to save the bees time in building it, a large quantity of liquid honey is often obtained.

Comb foundation is now used by all progressive bee-keepers, for like the honey extracted, it enables the bees to gain time in the storing of honey. It is claimed that a new colony of bees supplied with foundation when placed in a new hive at times of swarming, will gain as much in two days as they would in eight days without it.

Many suppose that honey-comb is being manufactured entirely and filled and finished by the hand of man. The most scientific experts in bee-culture agree in saying that it is not and cannot be done.

In October and November the colony prepares for its long winter rest. The queen stops laying eggs, and the bees do little else but fly out on warm days for exercise. The first product of the bees of importance is honey; the next is wax. This solid, fat-like substance is secreted by the bees in little wax-pockets beneath the wings on the under side of the body of the bee. It is always a subject of admiration, so fragile and yet so strong. There are four of these wax-pockets on each side of the bee, and the first we can see of the wax it is in the form of little tumbler-shaped scales, white and very thin. A swarm of bees has to consume about 20 pounds of honey to produce one pound of wax, and soon after hiving, a large part of the swarm hang in festoons and clusters several hours, waiting for the wax to form. When fully formed these wax scales are transferred to the mouth of the bee where, by the use of its jaws, it is moulded into that beautiful structure, the honey-comb, so wonderfully delicate that it is only about 1,000th of an inch in thickness, and so formed to combine the greatest strength with the least expense of material and room.

West Mansfield, Mass.

* * *

For the American Bee Journal.

Bee-Keeping in Southern Indiana.

J. H. LOUDEN.

Unless there is some change in the weather soon, in this part of the country, the question that will trouble the bee-keeper this fall will not be how to dispose of his honey, but how to winter bees without honey!

The bees, so far, have gathered scarcely enough to keep them. The weather has been very unfavorable. During fruit-bloom it was cold and wet; then we had a spell of warm weather, and a little honey was gathered from the locust. White clover commenced blooming the last week of May, and the ground now, in places, is white with it, but we are getting no honey. After the clover cammenced blooming, we had heavy rains every day or night, up to June 8th or 9th, then it cleared off cold, and an east wind has been blowing ever since. The prospect is not very encouraging.

I have as many colonies as I want, and in the spring I purchased a copy of Simmins' book on preventing swarms. I have been following his instructions with fine results so far. The system works admirably while no honey is coming in. If we are fortunate enough to have a flow of honey, I will report on "Simmins' Non-Swarming System." The basswood will bloom in about ten days, and if the weather is favorable we may have a flow of honey from it.

Last season I sowed a small field in Alsike clover, on my farm about 2½ miles from the city. It is now in bloom, and makes the most beautiful carpet with which the earth ever was covered.

Bloomington, ♀ Ind., June 14, 1887.

Semi-Tropic California.

Dividing for Increase.

S. D. BARBER.

To do this successfully, queens should be reared and ready to furnish each new swarm with a fertile queen at the time of forming such colonies; the time saved in breeding is very important.

TO REAR THE QUEENS.

Form a nucleus from the strongest colonies, select a comb containing capped brood and plenty of eggs and young larvæ; look it over carefully lest the old queen is on it; cut one-third or one-half the lower part out of this comb, which gives the bees room to build cells on the lower edge—a convenient place for the operator to remove them, when forming other nuclei. Place this, with its adhering bees, in an empty hive, and next to it another comb containing honey and bee-bread; this affords food and protection. Give the nucleus colony at least a quart of bees, and put it on a new stand, and confine the bees there until the next morning. Then contract the entrance so that but one or two bees can pass out at the same time. They will usually build six or ten or more queen-cells on the eighth or ninth day after the nucleus was formed. Then open the hive, and with a very thin-bladed knife cut out all the queen-cells but one, and use them immediately in forming other nuclei, by attaching each to a frame of comb and bees taken from an old colony as before described, and placed in an empty hive.

In transferring queen-cells care must be taken not to expose them to cold or heat, or to denting the cell. Leave about an inch square of comb at the base of the cell, and insert it among the young brood. Never leave a nucleus colony destitute of young brood after the young queen hatches, as the bees are very apt to abandon the hive when the young queen goes out to meet the drone. Now watch and care for the young queens until they become fertile.

WHEN AND HOW TO INCREASE.

When your colonies are strong and you are ready to form new ones, first, cage the young queen, then from a number of colonies take sufficient frames and bees to form a good colony of bees; close up the hive of the new colony until the next morning, then open it, and on the second or third evening liberate the queen. Continue in this manner until you have such increase as you desire, but in all the operations use plenty of smoke.

Again, the forwardness of the season must be your guide as to the time to form colonies. You can rear queens early and keep them in readiness; a colony of bees without a fertile queen, build mostly drone comb. The bee-keeper that rears queens for new colonies must have the hives for the season-ready early. Success is not in the number of colonies on hand; it is not bees we want, it is honey. It is not a great number of workers in one field that will secure this, but a large force in each hive.

The apiary should have the cheerful ray of the morning sun. A very good way to check robbing is to place a bunch of grass or wet hay over the entrance to the hive. The bees will find the way to their own hives, but robbers will be caught by the sentinels while passing through the grass. The moth is a scavenger which comes to clean up the wreck of the negligent bee-keeper.

Downey, ♀ Calif.

Prairie Farmer.

Getting Bees out of Honey-Sections.

MRS. L. HARRISON.

As I was one day out driving, a man shouted as he drove by, "How do you get bees out of the honey-boxes?" I felt like replying, "Get a stick and drive them out," for the reason that this man is too penurious to invest a cent in a paper or book, in which he could learn how to manage bees, expecting to get his information without expense or labor on his own part. Different kinds of surplus boxes of course call for different management. Where one pound sections are used in Heddon cases and tiered up, the nearest finished on top, when these are completed, the bees can be driven below with smoke or the breath. The box is then carried into the honey house or close room, as the case may be, and set upon the edge; the bees, if there are any, will cluster upon the windows, and may be put out. I once saw a farmer who kept only a few colonies for his own use, take off old-fashioned close boxes and put them into the bottom of an empty barrel, and cover it up tightly excepting a small hole for the bees to go out of. He was not troubled with robbers in this way, and the bees flew home to their hives.

SWEET CLOVER FOR HONEY.

Indians call white clover the "White man's foot," and sweet clover (*Melilotus alba*) might appropriately be named the "bee-keeper's tracks," for it is generally found growing in their vicinity. When traveling, and this plant is visible, it always seems to indicate the proximity of the fraternity, and I feel that friends are near. It appears as if bee-keepers carried the seed of this plant in a pocket which had small holes in it, letting it trickle out. Some farmers class it as a noxious weed. This, however, is a mistake, as it dies root and branch the second year, and appears to thrive best in poor, gravelly soils, and protects uneven ground from washing out in gullies. It starts very early in the spring, before other clovers, and at this time is eagerly eaten by fowls. Melilot appears to yield honey at a time of day when others fail. From observations, I conclude that the flow of nectar at any one time is not large from sweet clover, but is very valuable on account of its continued bloom during drouths, and during the interim between spring and fall bloom.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Kissing Bees.—Oliver Foster, Mt. Vernon, ⊶ Iowa, on June 18, 1887, writes:

DEAR EDITOR:—Will you please pardon the following (see page 371), and print it as a bit of "scientific pleasantry," written at my out-apiary on a hive-cover, with honeyed hands and a swollen eye:

"If a body kiss a body,
Need a body cry?"
Or should a bee kiss you or me,
Or, with her wish comply,
And kiss the lady's hand, I'm sure
The lady would not lie,
Should "doubting Thomas"—though
from us high—
Think 'twas "in her eye?"

Now bit or miss, I'll tell you this,
My bees are not so shy;
They from my fingers sweetness kiss,
And beauty from my eye.
And is it queer, with charms and cheer,
The winning mistress found
Her honey would bring "fifty cents,"
Or *sixty* cents per pound?

Taking New Honey. — Nate C. Pedley, Dubuque, ⊶ Iowa, on June 21, 1887, says:

My bees wintered pretty well, as I lost only one colony out of 17. I have had 2 rousing swarms so far. I will take off three cases of clover honey on Friday.

Fair Crop Expected. — Jos. E. Shaver, North River, ♂ Va., on June 21, 1887, says:

For the last 10 days bees have been doing extra well on white clover; before that time they were in a starving condition. But now the fields are white with clover, and the weather is very fine, and we have hopes for a pretty fair crop of honey yet.

Strong Colonies, but no Nectar.—J. W. Bittenbender, Knoxville,♀ Iowa, on June 18, 1887, writes :

Bees in this locality are doing but very little in the way of gathering surplus honey ; if we get a quarter of a crop we will do well. Bees wintered well, and colonies are very strong, but it is very dry and warm, and white clover does not secrete any nectar. Linden is just opening, but I cannot tell, at this writing, what the harvest will be.

No White Clover Honey.—L. Highbarger, Adeline,♂ Ills., on June 17, 1887, writes :

The white clover honey crop I predict will be an entire failure in northern Illinois, on account of the drouth. My bees have less honey to-day than they had last April, when put out of the cellar. The true time when to put on sections has not appeared yet, and I think it will not (that is, new comb). I have a field of Alsike clover, but there appears to be no nectar in it—something that I have never known before. Pastures have given out, so we have to turn our stock on the grass intended for hay.

No Swarming, etc.—Harry Griffin, Kilgore,♂ Ky., on June 17, 1887, says:

White clover is in full bloom, and the bees have hardly started to gather any surplus honey. I hear of no swarming in this part of the country.

Unfavorable Prospects.—D.F.Park, Athens,♂ Pa., on June 20, 1887, says :

The prospect of a crop of white clover honey is not good. Clover has been in bloom for ten days, but owing to cold nights it has yielded but little honey. In over 70 hives but 4 show honey in the sections ; one of these is a new colony hived one week ago, *a la* Hutchinson, which is nearly filled with white honey. Thanks, Mr. H. Swarming is light as yet ; my bees have cast but 7 swarms, while my neighbor's bees have not done so much. The last three nights have been warm, and honey is now coming in better.

No Honey—Shade for Hives.—O. R. Goodno, Carson City,⊙ Mich., on June 20, 1887, writes :

I began the season with 100 colonies of bees, besides 3 or 4 small, weak ones. On June 1, there was not one pound more honey in the hives than there was when they were put out in the yard, but they were full of brood. Prior to June 1 we had had a dearth of honey, so all the bees in the country were set to robbing ; since white clover opened they have gathered some honey, and a few have swarmed, but there have been no second swarms. I have cases on about 100 colonies now ; a few are nearly capped, others not commenced. There is no boom in either honey or swarms. I am going to try ten reversible hives. I saw an article in a recent number of the Bee Journal with reference to shading hives. I find that sun-flowers are very satisfactory for shade, in my yard. I keep it hoed, not allowing a weed to grow, but plant about two seeds just at the front corner of the stand ; they come on about July, August, and Sept. 1, at a time shade is needed, while they are out of the way during both spring and fall. The stalk below does not hinder the bees' flight, and the shade above is just where you want it. It affords some pasture, and chicken feed when gathered. Basswood is budded very full, and bids fair to open early.

Favorable Prospects for Linden.—Clemons, Cloon & Co., Kansas City,⊷ Mo., on June 16, 1887, write :

We have had splendid rains the last few weeks, and the prospect for a good crop of linden honey is favorable ; while the white clover will be very light.

Bees doing Nothing.—Henry Alley, Wenham,♂ Mass., on June 16, says :

It is cold here. Bees are doing nothing, and have not done anything so far this year. The season will close here in 20 days.

Bees Doing Poorly.—Jos. M. Hambaugh, Spring,⊷ Ills., on June 16, 1887, writes :

Bees are doing very poorly in this locality. There is no swarming, and but little tendency in that direction. The wholesale slaughtering of drones has been the order of the day up to about three days since, and there are less in the air than I ever saw at this time of the year. I had extracted twice up to this date last year. Clover has been abundant, but comparatively no nectar in it. I hope to be able to present a better report next time.

Excellent Honey-Flow.—Dr. S. W. Morrison, of Oxford,⊶ Pa., on June 22, 1887, writes as follows :

The past five days has exceeded any previous five days that I have ever seen in the honey influx ! "Hurrah" for Carniolans ! I have 50 colonies of them, and I am delighted with them.

Surplus Crop Nearly a Failure.—E. T. Jordan, Harmony,⊷ Ind., on June 22, 1887, writes :

Bees wintered well in this locality. I lost 2 colonies out of 63, and then disposed of 12 colonies. Bees have done nothing as far as producing honey, and the crop will be very light. They obtained no surplus from fruit-bloom, and white clover is almost a failure. We have very little basswood, so our surplus honey will be nearly a failure. By this time last year I had taken over 2,000 pounds of honey from 42 colonies ; this year I have not taken any, and have had only 11 swarms.

No Nectar in White Clover.—F. H. Kennedy, Du Quoin,♀ Ills., on June 17, 1887, says :

The bees here are doing next to nothing. There seems to be no nectar in the white clover, so the bees have eaten what honey they had this spring, and are gathering only enough to live on, and are not rearing brood. Some bees are working on red clover now, but it is about all cut. White clover is still blooming.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—Prices are about 10@12c. for comb. Extracted, 5@7c., according to quality and packages. Stocks and demand light.
BEESWAX.—22c. R. A. BURNETT,
June 9. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.
BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, 5@5¼c; light amber, 4¾@5c. ; amber, 4¼@4½c. Comb, white, 12@14c. ; amber, 7@10c. Demand very good.
BEESWAX.—22@24c.
Jun. 13. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unaalable at 8@9c. Extracted, 5@6c.
BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3⅛@4⅛c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.
BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@14c. ; amber, 7@c10. Extracted, white, 4¾@5c. ; light amber, 3¾@4½c. Market quiet.
BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c. ; choice 2-lbs., 10@11c. ; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c. ; in white in kegs and barrels, 6@6½c. ; dark, 4 to 4½c. ; amber, in barrels, 4½@5c. Demand limited and supply small.
BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : White comb, 9@12c. ; dark 5@7c. California comb, 8@9c. ; extracted, 5@6c. Sales large and demand good.
BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote : White clover 1-lbs., 10@12 cts. ; dark, 9 to 10c. White clover 2-lbs., 10 to 11c. ; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Market almost bare of comb and extracted honey.
Jun. 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c. ; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.
BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted. 3@7c. per lb. Best comb brings 11@14c. Demand improving.
BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C.F. MUTH & SON, Freeman & Central Av.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there Is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to **60** cents, postpaid. Subscription for one year and the binder for $1.50.

◆

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Where to Keep Honey is the title of Leaflet No. 3. For prices see the second page of this paper. If you wish to see a sample of it before purchasing, send for it.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Advertisements.

BY Return Mail.—Italian Queens, Tested, $1; Untested. 60c. Bees per lb., 50c.
26Atf GEO. STUCKMAN, Nappanee, Ind.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

UNTESTED Italian Queens.—Single Queen, 65 cts.; 5 for $3.00; 12 for $6.50. **BEES** per lb., same price as Queens.
26Atf **I. R. GOOD,** Nappanee, Ind.

FOR SALE CHEAP.—One GIVEN'S FOUNDATION PRESS and FIXTURES complete. Nearly new, and in good order.
Address, **W. C. CUMMINGS,**
24A2t BUSHNELL, ILL.

BEE-KEEPERS—read and save Money. Sections, Crates, Frames, Foundation, Hives, etc. Sections, $3.50 per 1,000. Send for Price-List. **C. MATHEWS,**
23A4t IMLAY CITY, MICH.

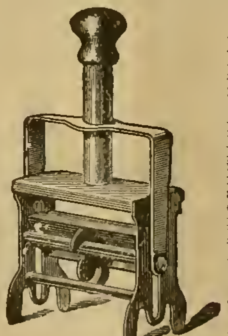
A GREAT SCHEME! Sell honey to the millions. Examine our new, peculiar Small Honey Package, and our brilliant Chromo Card. See our large advertisement once a month, or address,
J. H. MARTIN, HARTFORD, N. Y.
6W(3tm)40t

FOR SALE.—50 mismated ITALIAN QUEENS at 50 cts. each. Warranted Italian Queens at $1.00.; Hybrids at 35 cts. The most of them have wings clipped. GEO. P. HOWELL,
Peters, near Adam St., NEW ORLEANS, LA.
26A1t

WANTED.

A **SITUATION** as an Apiarist, or in a shop. I am a practical apiarist.
M. J. HARRIS, Calhoun, Richland Co., Ill.

SELF-INKING RUBBER-STAMP.


THE "MIDGET."

2,000
Impressions for 10 cts. Will last a life-time. Everybody needs one. It prints indelibly Envelopes, Letter heads, Postal Cards, Wrapping-paper, Bags, Sections, Crates, Cartons, Bedding, Robes, Clothing—everything. Your name, occupation and address, with the machine complete, sent free by mail, for $1.00 P. O. Money Order. Extra ½-oz. bottles of ink for 12c. in stamps.
Address,
GEO. T. HAMMOND,
Brockport,
Monroe Co., New York
26Etf

BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives; for sale CHEAP. Address, **Z. A. CLARK,**
8Etf ARKADELPHIA, ARK.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

BY RETURN MAIL!

SIX Warranted Italian Queens............... $5 00
Fourteen Warranted Italian Queens.......... 10 00
☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

SECTIONS.

WE make a specialty of the manufacture of DOVE-TAILED SECTIONS of the White Poplar, the whitest and best wood for the purpose. We make all styles and sizes, but recommend the Side-Opening Sections as superior to any other. The great accuracy and fine finish of our Sections are the admiration of everybody. Sample 3 cents. Price-List of Supplies free.
Address, **DR. G. L. TINKER,**
8Etf NEW PHILADELPHIA, O.

BEES and HONEY,
OR THE
Management of an Apiary for Pleasure and Profit; by
THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;
Or, MANUAL OF THE APIARY.
13,000 SOLD SINCE 1876.
5,000 Sold Since May, 1883.

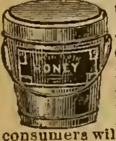
More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



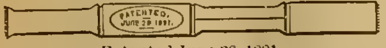
THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

100 Colonies of Italian Bees,
Strong, first-class in every respect. For Sale at reduced prices.
15Atf **E. C. L. LARCH, Ashland, Mo.**

"Boss" One-Piece Sections,
MANUFACTURED BY
J. Forncrook & Co., Watertown, Wis.



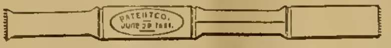
Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

"Boss" One-Piece Sections,
MANUFACTURED BY
J. Forncrook & Co., Watertown, Wis



Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

HUMPHREYS'
HOMEOPATHIC
SPECIFIC No. 28
In use 30 years. The only successful remedy for
Nervous Debility, Vital Weakness,
and Prostration, from over-work or other causes. $1 per vial, or 5 vials and large vial powder, for $5.
SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
16A12t

Extra Thin FOUNDATION
In 25-Pound Boxes.

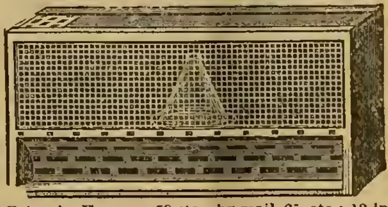
WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity. All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

Muth's Honey Extractor,
Perfection Cold-Blast Smokers,
SQUARE GLASS HONEY-JARS, etc.
For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,
THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL

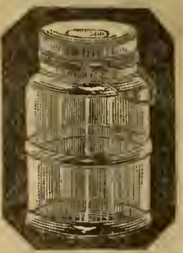
BROOD-COMBS for Sale.—500 Brood-Combs built on full sheets of foundation in Heddon-Langstroth reversible frames, 1 and 2 yrs. old. All in good order, cheap. For price, address—J. H. M. Cook, Caldwell, N. J.
25A2t

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

GLASS PAILS
FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	**$1.60**
" 2 pounds " "	.....	**2.00**
" 3 " " "	.....	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEAUTIFUL.

ALL-IN-ONE-PIECE Sections, smooth inside and out. Comb Foundation, Alsike Clover Seed, and everything needed in the apiary.

Send for free price list, and samples of Sections and Foundation.

M. H. HUNT,
BELL BRANCH, Wayne Co., MICH.
10Etf Near Detroit.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

W. Z. HUTCHINSON,
Rogersville, Genesee Co., Mich.,

DESIRES to call attention to the typographical neatness and "get up" of his little book,

"THE PRODUCTION OF COMB HONEY."

It is printed from new type (brevier); the matter leaded; the paper is heavy, delicately tinted and super-calendered; and the press-work is a "credit to the craft." But it is the cover, which is bright-yellow card-board passed through a comb foundation mill, that has brought forth the most enthusiastic encomiums. The work is very nicely done, and, at the first glance, the cover would almost be taken for foundation; while the beautiful twig of basswood upon the back of the cover and the artistic lettering upon the front, printed as they are upon a corrugated surface—all combine to give the book a peculiarly neat and tasty appearance.

Dr. A. B. Mason writes:—The cover is nice, printing *fine*, and contents *grand*.

Dr. C. C. Miller says:—Nothing less than a genius would have gotten up that cover.

E. Kretchmer says:—It is a surprise, in style workmanship. Nothing could be added to improve it.

Louis Werner writes:—It is the best bee-book I ever had, and I do not see how you can print such a neat book for so small a price.

James Heddon writes:—Your book is a "dandy" The "get up" is nowhere equaled. You have outdone us *all* on the book problem, and I am *glad of it*.

Chas. Dadant & Son write:—The book is at hand, and though we do not agree with all it contains, we must say that it is as neat and tastefully gotten up as anything we ever saw.

The *Bee-Keepers' Magazine* says:—"The Production of Comb Honey" is the title of a unique little work of 45 pages, by the pen of W. Z. Hutchinson. Mr. Hutchinson struck a happy idea when he designed the cover of his work.

Prof. Cook offered congratulations again and again, saying: -It is decidedly the most unique little thing I have seen in a long time. Why, that cover *alone* ought to sell it, to say nothing of the good things *inside*.

The above are fair specimens of scores of similar testimonials that I have recieved, *unsolicited*.

☞ Reader, if you wish to see a little typographical "gem," send 25 cents for, "The Production of Comb Honey."—Stamps taken; either U. S. or Canadian.
25Atf

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. July 6, 1887. No. 27.

The Basswood Yield of honey is very limited, so far as reported. The all-but-universal cry is : "the honey crop is a failure." We shall hardly realize this year the poetic fancy of "nectar" expressed in the following lines found on page 197 :

> Sweet summer—one poetic dream
>   Of nectar and of flow'rs ;
> Of hazy halo o'er the lawn,
>   And sylvan woodland bow'rs ;
> Arcadian haunts, that poets love—
>   The mystic, the sublime,
> Brought down to earth to rear aloft
>   An apiarian shrine.

◆

Mr. T. W. Cowan, editor of the *British Bee Journal*, intends to visit some of the apiarists of prominence in America. He is accompanied by Mrs. Cowan, and will start on a Cunard steamer on the 9th inst., bound for New York. He intends to come as far West as Chicago, and would like to visit some apiarists on the way, either coming or returning. Those desiring a visit from Mr. Cowan should send an invitation by the 15th inst., to this address : "Mr. Thos. W. Cowan, care of the American Exchange, 162 Broadway, New York." Such will be informed if he can make it convenient to call on them.

◆

Bees in a Bell.—The bell of the Rich Avenue M. E. Church, in Chicago, did not call the worshippers as usual last Sunday morning. Upon ascending to the steeple to see what the trouble was, Sexton Peck discovered that an immense swarm of bees had taken possession of the belfry, and were preparing to hive in the bell. Mr. Henry W. Reynolds followed the truants all the way from South Evanston, and, with a veil over his face, he spent Sunday morning in that belfry collecting the myriad of bees in a bag. Having succeeded in this, he transported the refugees back to his Evanston apiary. Mr. Reynolds says that this is the fifth "swarm" he has followed this year. One swarm led him a "wild chase" away up into Winnebago county, and had begun to hive in a hollow cotton-wood. He took them home, however, in triumph. We should think Mr. Reynolds would take measures to prevent his bees making him so much trouble—unless he enjoys the "fun" with the notoriety thrown in !

Another Blow, aimed at the industry of bee-keeping, may be found in *Harper's Bazar* for June 25, 1887. It is exceedingly strange that periodicals like those of the *Harper's* should descend to the degrading habit of publishing such falsehoods about an honorable pursuit. Here is the item :

> One would suppose,by the way that honey in the comb, like the meat of an egg, was something not to be adulterated ; that is, the egg taken directly from the nest, the honey from the hive ; but a person of our acquaintance hearing of the immense use made of glucose in various adulterations, and especially in sugars and candies, thanked Heaven that at any rate one could fall back on honey which was necessarily pure.
>
> "Not at all," replied a dealer in the article, "We put a large lump of glucose down before a hive, and the bees will consume it out of the hand—consume it all—and make their honey out of it, and as long as the lump lasts they will not spread a wing to find the sweetest flower that ever bloomed."

That "dealer" was either ignorant of the matter he was talking about, or else he was very dishonest.

It is well-known that bees will not feed on glucose until driven to it by starvation. They would *wear out every wing* in trying to find the flowers rather than to touch glucose close by their hives ! And this talkative "dealer" ought to know that such are the facts in the case !

Again, bees do *not* "make honey"—they simply gather the nectar from the flowers and deposit it in their hives. It is precisely the same nectar in the combs that was gathered from the flowers, only that the heat of the hives evaporates some of the water, and it is slightly thicker. In rainy seasons the honey gathered sometimes contains so much water that it ferments ; this shows that the bees gather just what they find, and that they do not "make honey" at all. Will the *Bazar* please correct these mis-statements as early as possible ?

◆

Bee-Grape Question.—This is how a San Diego, Calif., bee-keeper settled the controversy about the bees being able to attack and eat up sound grapes. From the San Francisco *Chronicle* we extract the following concerning the trial he made :

> A San Diego bee-keeper has effectually settled for himself the question of the alleged damage done to grapes by his insect pets. He took a perfect bunch of grapes, every berry of which was sound and in good order, and suspended it in the middle of a hive of bees for an indefinite time. It remained there several weeks, or perhaps months, and at the expiration of the period was removed in as perfect a condition as when first put in the hive. Thousands of bees had been crawling all over the fruit during that time, only too eager to attack the toothsome juice thereof, but had been unable to satisfy themselves. The experimenter now has his mind fully made up on this moot question, and all the argument that could be made between now and doomsday would not alter his belief.

Now let this unreasonable war against the bees cease. The fruit-men have been fighting against their very best friends.

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Hives of Bees, an exchange wisely remarks, should not be placed in close proximity to dwelling houses, stables, line fences or public highways, as the bees are liable to be disturbed and to become annoying, and often dangerous to people and animals.

The Honey-Bird of South Africa is in size and plumage about like an English sparrow. It acts as a detective for wild bees, and will lead men to bee-trees. A traveler in Africa thus describes it :

> When this bird sees a man it will fly close to him, hovering around, uttering a twittering sound ; then it will off in the direction of the place (generally a tree) where the honey is, flying backward and forward in a zigzag fashion. Then back it will come, twittering in the same manner, as if to say, "Come along, I'll show you where it is." These actions are repeated until the tree is reached, when the bird will indicate it very plainly by hovering around it.
>
> If the distance is great (and sometimes the honey-bird will lead a person, who is willing to follow, a distance of ten miles), it will wait on a tree until the follower comes up, and will then continue its piloting. It is very persistent, and will do its best to draw any one on, but if the party is not posted about honey-birds, and refuses to follow, or goes in the wrong direction, the bird will leave, probably in search of some person who will appreciate its efforts to provide sweetmeats.
>
> While the bees are being smoked out, and the honey taken up, the bird will hover in the vicinity until the job is done, when his reward comes in the shape of a feast on the fragments that are left. If it knows of other hives, just as soon as one is disposed of, it will lead the way to another, and I have, since this time, known as many as four trees taken up by a party in one day.

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A Reception to Mr. Cowan is proposed by the *Canadian Bee Journal*. We cordially support the suggestion. It will be the most appropriate for the Canadians, who were so lately *welcomed* by Britons, to get it up, and invite the apiarists of the U. S. to unite with them in a "*Welcome to America.*"

◆

At Fairs a good plan to sell comb honey was noted in the *Canadian Bee Journal* some time since. As the Fairs are soon to be held, it may be well to give it a trial. It is as follows :

> At the Toronto Exposition it was very easy for a person passing through the honey-house to perceive the simple and easy method of disposing of sections which had been but partially filled out. Thousands of sections may be sold at every Fair by the method there adopted. We think the credit is due Mr. J. B. Hall, of Woodstock, as the first who commenced selling in this way. It is done by cutting the sections from corner to corner, making four triangular pieces, laying them down on the wood, showing off the honey to the best possible advantage. The pieces sell very rapidly at 5 cents each, giving you 20 cents for each section. It would not pay to take sections that contained a full pound or more of honey, and cut them in this way. Every year bee-keepers are getting more and more into the habit of using narrower sections ; and we are becoming convinced that sections more than $1\frac{1}{2}$ or $1\frac{5}{8}$ inches are too wide to be profitable. We do not think many of our customers will use sections narrower than $1\frac{5}{8}$ inches, perhaps not that wide. Cutting up the sections and selling the pieces at 5 cents each at the Exhibition, has become so popular that there must have been 25,000 or 50,000 people fed with honey during the two week's Fair.

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Mark It.—We have received several local newspapers lately from our subscribers, in which nothing was marked. Please do not forget to mark any paragraph you wish us to read, when sending local papers to this office. We have no time to read 30 or 40 columns of matter in order to find a few lines that may be of interest to us or the pursuit. Mark it, either blue, black or red, with pencil or ink, as may be most convenient—but be sure to mark it.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Space below Brood-Frames.

Query 439.—1. My brood-chamber takes the Langstroth frame, but has a stationary bottom-board. Will the bees build brace-combs between the bottom-bars of the frames and the bottom of the hive, if as much as ¾-inch space is given? 2. Would such a space be an advantage or detriment, or neither?—J. L., Vermont.

1. They would do so. 2. It would be a detriment.—J. P. H. BROWN.

1. I think not. 2. In winter it would be an advantage.—C. C. MILLER.

1. If they are crowded for room, they will, but not otherwise. 2. The space is not detrimental.—DADANT & SON.

1. No, I think not. 2. In wintering the space would be quite an advantage, I believe.—A. J. COOK.

1. Sometimes they might do so. 2. I should prefer a ⅜-inch space.—G. M. DOOLITTLE.

1. They will build comb in a ¾-inch space if they have not room above. 2. Three-eighths inch space is plenty.—H. D. CUTTING.

1. No, not if they are properly handled during the surplus season. 2. It would be both, and perhaps when balanced, neither.—JAMES HEDDON.

1. I have not had comb built between the bottom-bars of the frames and bottom-board, except when crowded for room; then all available space is filled. 2. I think a ¾-inch space is more than is necessary, but no great detriment.—G. L. TINKER.

1. They will certainly be apt to do so unless care is taken to give ample frame room. 2. I should consider such a space a detriment during the honey-flow, but I should consider it an advantage at other times, and especially during the winter, or when bees are to be confined in the hive.—J. E. POND.

1. I have never known bees to build brace-combs under the frames at the bottom of the hives, but I rarely ever allow more than ½-inch space under the frames, and I think this is about right. Bees will frequently build "stumps" of propolis under the frames. 2. I think ¾ of an inch greater than necessary, but it will do no harm after the bees get used to it. Thirty or more years ago I used *hanging* bottom-boards to my box-hives, and I noticed that when I first let them down in the spring to give more ventilation, it bothered the bees seriously until they got used to it.—G. W. DEMAREE.

1. They will not build brace-combs between the bottom-bars and bottom-board, even if the space is ¾ of an inch; but they will build little knobs of wax or propolis upon which to climb to reach the frames. 2. I do not know that it would be an advantage or a detriment in the summer. In the winter I like to have the hive raised an inch or two, but I prefer to put a rim under during the winter.—W. Z. HUTCHINSON.

1. Brace-combs at the bottom of the frames would be rarely built, unless the bees were much crowded for room. 2. Such a space might be advantageous in winter, and not particularly detrimental in summer; but ⅜ of an inch would be preferable.—THE EDITOR.

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Keeping Bees on Shares.

Query 440.—Suppose I rent one or more colonies of bees, I to do all the work, furnish the hives, sections, etc.—what share ought I to have when we divide the profits?—W. C., Mich.

Three-fifths.—DADANT & SON.

Two-thirds.—H. D. CUTTING.

Seventy-five per cent.——J. P. H. BROWN.

Two-thirds the honey, and one-half the increase.—G. M. DOOLITTLE.

Two-thirds or more. Much depends upon circumstances peculiar to the case.—JAMES HEDDON.

Let the other man furnish everything, or else pay you for it, then divide the surplus honey equally; the man owning the bees to have the increase.—W. Z. HUTCHINSON.

At least one-half, and I think two-thirds. Usually one-half is given where one does the work and the other owns the bees, and each shares equally the expense.—A. J. COOK.

According to my judgment two-thirds of the profits, including increase. But if you have the means to commence with, I would prefer to buy the bees and have all the profits. If not, of course take the bees and get a start by working it out. Work and patience guided by intelligence is the polar star of success.—G. W. DEMAREE.

I should say two-thirds, but the renting of bees is subject to so many conditions that it would be difficult to fix rates for every locality, as some are more profitable for bee-keeping than others.—G. L. TINKER.

The above question has been asked many times, but as yet I have never seen a satisfactory answer given. So much will depend upon the bees, the season, and the locality, that an answer that might apply to one region might not to another. Then again, a test in one season might not be a guide for the next, owing to causes over which we can have no control. "The proof of the pudding is in the eating."—J. E. POND.

About three-fourths of the honey and increase.—THE EDITOR.

Bees Purchased without a Queen.

Query 441.—1. On receiving a package of bees, is it advisable to put brood with them before they have accepted the queen? 2. What is your method of procedure in such a case?—G. B., Michigan.

As a rule, we would not buy bees without a queen.—DADANT & SON.

Yes, if you have not a queen to give them at once.—G. L. TINKER.

It is not essential; though if convenient, give a frame of brood.—J. P. H. BROWN.

1. I should guess no. 2. I never received a package of bees without a queen.—G. M. DOOLITTLE.

I am not posted upon this point; in all the bees that I have bought, a queen came with them.—W. Z. HUTCHINSON.

I give both at once, but I would introduce the queen according to the plans well known as successful.—A. J. COOK.

1. It would do no harm, if it did no good. 2. Run the bees into a hive containing a caged queen, and release the queen as soon as practicable.—H. D. CUTTING.

1. Yes, give them young brood and eggs. 2. This question involves too long an answer for this department.—JAMES HEDDON.

I should hive them on frames of comb containing brood, and should introduce the queen at the time of hiving. The novice would do better to use a little precaution in the introducing of the queen, such as caging her for 48 hours within the colony before letting her loose.—J. E. POND.

1. A person who *needs bees* is not likely to have queens on hand to introduce to the bees when they arrive. I do not think it advisable to buy bees without a caged queen with them. Queenless bees will wear away half of their usefulness while making a journey of but a few days. 2. The way I would proceed with a package of bees without a queen is as follows: Place a frame of sealed brood—rather brood in all stages—in a hive with some other combs or frames filled with foundation, and *hive* the bees in the usual way. If I have a queen to give them at once, she is caged, and the cage is placed under the quilt on top of the frames until the bees accept her. Otherwise the bees are permitted to rear a queen from the brood given them.—G. W. DEMAREE.

Give them both eggs and brood, or introduce a queen by some of the methods heretofore given in the BEE JOURNAL.—THE EDITOR.

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When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Correspondence.

This mark ☉ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; ○+ east; +○ west; and this ♂ northeast; ‛○ northwest; ○‚ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

"Liquid" or "Extracted" Honey.

G. W. DEMAREE.

Allow me to say that the editorial on page 291, concerning my answer to Query 415, hardly does me justice. The question was about "extracted honey," and I simply gave my experience and views on the subject. Certainly the language used in that place cannot be fairly construed as being a proposition on my part to substitute the word "liquid" for "extracted." I only say that having found the name "extracted" in my way in making sale of honey, I "now call it liquid honey."

But now since the question has been raised as to whether the name "extracted," as applied to honey *out of the comb*, is or is not a "misnomer," I wish to call attention to the fact that honey has been sold largely on the markets under the name "extracted honey" for 8 or 10 years, and yet the name "extracted honey" has been all these years almost, if not entirely, ignored outside of the honey-producers, and a few large honey-dealers. This ought to settle the matter as to the question of misnomer.

The word "extracts," in commercial parlance, never applies to a simple article of food. The people are fully aware of this, and they are guided by simple reason and common-sense when they "want none of your 'extract' (of) honey."

I am not prepared to suggest an unobjectionable name for honey out of the comb, but I have found that when I speak of it as "liquid honey," I am promptly understood by my customers, and this saves me from a world of worrysome explanation. Honey, in its natural state, is a liquid. It never granulates in a temperature as high as that of the immediate brood-nest. It will never granulate if the place where it is kept has a uniform temperature but a little below that of the brood-nest filled with live bees. The fact is, low temperature is the cause of honey granulating. There has been a jar of honey in our family cook-room for 8 years, and it has never showed any signs of granulation, for the simple reason that this room is kept at a high temperature the year around. The fact that water will become solid, syrups granulate, and pure honey become semi-solid when subjected to low temperature, seems not to have frightened Webster and other high authorities from speaking of them as liquids, or by other terms equivalent to that.

While I am persuaded that it would put millions of money into the pockets of the honey-producers of this country to drop the misnomer "extracted" for a more appropriate name for the article, I have little hope that it will ever be done. Prejudice and sentimentality is likely to stand in the way of the correction of even so great a mistake as is the name given to our great staple product of the apiary.

As a matter of course, practical bee-men know that the name "extracted" refers to the mechanical action employed to draw the liquid honey from the waxen cells, and not to the quality or state of the article. But right here is where the trouble lies—when the name "extracted honey" is mentioned, the bee-man has in his mind mechanical action, but the consumer thinks of nothing but quality or state of the article.

That shrewd, enterprising honey-dealer, Mr. Chas. F. Muth, detected this serious trouble in the name "extracted" some years ago, and tried to remedy it by adding the word "machine" before "extracted." Thus: "machine extracted honey."

"Strained honey" is objectionable on account of the impurity of the dirty stuff sold under that name in the olden times. Still it would have been much better to have held on to the old name, depending upon the superior quality of the centrifugal-machine honey, over the old pressing system of freeing the liquid honey from the wax, etc., than to have adopted a name that a majority of consumers treat with contempt. I shall call it "liquid honey" until some one gives us a better name.

Christiansburg,♂ Ky.

[True, Bro. Demaree, the word extracted is objectionable, as we stated on page 291. We want a better name, and must discuss the appropriateness of such names as are *used*, whether *proposed* or not! Liquid is not the word—will not be acceptable—and will not be adopted. Bro. Demaree, will you please give us something better, and then we will give you in return a rousing "vote of thanks." We want a change—but it must be for the better.—ED.]

For the American Bee Journal.

No Comb Foundation in Sections.

W. Z. HUTCHINSON.

Since the publication of my article on page 341, I have received quite a number of letters upon the subject. In one of them the writer, Mr. J. Tomlinson, of Allegan, Mich., remarks as follows:

"What you say about foundation in comb honey is in accordance with my views. I have never used full sheets of foundation in sections, only starters from 1 inch to 1½ inches in width, yet I find that this tough centre of 'leather' seems to extend down through the whole comb. I have often heard Mr. T. F. Bingham say, when dilating upon the beauty and excellence of *honey comb*, 'That as melted butter is only grease, so melted honey-comb is only wax, and not fit for food.' So I think you are doing a good work to raise the note of warning, that in the strife after quantity we are likely to sacrifice quality....

"I would like to get rid of foundation in sections altogether. How would a starter of wood answer? Say we cut a thin saw-kerf in the centre of the top end of the wide pieces of the sections, deep enough so that a thin wood-starter could be slipped in just under the top piece, the starter to be say three-sixteenths of an inch wide, and one-thirty-second of an inch thick. To make sure that the bees would build on them, they might be waxed and run through a foundation mill. The only objection that I can see would be that these starters would be a little in the way when cutting the honey from the sections."

A bee-keeper in Texas sent me a sample of foundation made from wax that is naturally white. It is made from cat's-claw honey. He argues that the use of such foundation would remove the objectionable yellow color. True; but we cannot all secure foundation of this cat's-claw honey wax, and even if we could, we must remember that, "as melted butter is only grease, so melted honey-comb is only wax." I think this comparison of Mr. Bingham's is imimitable. We all know that melted butter is grease, and we bee-keepers are equally well aware that when honey-comb has been melted it has lost that fine, delicate, flaky, crispy, brittleness; in short, it is *wax*, and where is the bee-keeper who cannot detect its presence in the honey he is eating, let it be rolled out ever so thin? I know that Mr. Doolittle reported that he used some foundation so thin that it offered less resistance to a wire thrust through the comb built upon it than did natural comb. But thrusting a wire through a comb of honey is not eating it. "The proof of the pudding is in the eating." This is the final test to which all edibles must be subjected.

I have not written all this with the hope that it would induce bee-keepers to give up the use of comb foundation in the sections, as I well know that they will not do this unless we can offer some substitute; but rather with the thought that it may lead them to exercise greater care in securing foundation. So long as we do use foundation in the sections, let us use that made from the cleanest and purest of wax, and that which has the thinnest possible base. Instead of using wooden starters, as suggested by Mr. T., I would use starters of natural comb. There may be some difficulty in securing sufficient natural comb to *fill* the sections, but enough for starters can be obtained with no great difficulty.

Rogersville,♂ Mich.

Translated from the German.

How do Bees Recognize each Other?

M. SCHACHINGER.

It is surely a striking phenomenon, that so many thousands of bees that live in the same hive, and under one queen, and whose period of life in summer time does not exceed six weeks on the average, can recognize each other so quickly and surely as to be able to detect a strange bee, scarcely differing from themselves in shape, size, and color, that is unhesitatingly attacked by a sentinel and forced out of the entrance in a fierce encounter. The bees seem to make an exception to this rule (of making strange bees keep their distance), only in the case of very young bees; that is, those taking their initial flight, and happening to alight at the wrong entrance, and of those which, coming to the hive laden with honey or pollen, miss their own home because of exhaustion, inclement weather, etc., and are compelled to seek one elsewhere. This is readily granted them, and henceforth they become true members of the family which has adopted them; and should they, in their turn, become sentinels, they would undoubtedly attack their own sisters, in case the latter tried to force an entrance into the hive.

A personal acquaintance of the bees with each other we must deny absolutely, because of the enormous number belonging to a single colony, their short life in summer, and because all are rarely in the hive at the the same time. Neither can color be a sign of mutual recognition; for bees to whom a queen of a differently colored race has been introduced, do not molest the progeny of this new queen, this progeny having a color differing greatly from that of the first queen. We therefore have remaining, speech, and the sense of touch and smell, which may serve them as a means of recognition.

For a long time bee-keepers were of the opinion that a kind of speech existed among the bees, and that, accordingly, a certain watchword (so to speak) enabled them to distinguish strangers from those belonging to their own hive. Of course bees have certain sounds by which they express emotions, and cause themselves to be understood outside the hive; for instance, the vehement, shrill cry produced by an angry bee that wishes to drive us from the vicinity of the hive, soon attracts a number of sister-bees from neighboring hives, whose combined attack finally compels us to beat a hasty retreat. Similarly does the swarm know how to call its thousands of members together in a few minutes, by the well-known joyous call-note.

But all of these sounds, of which the human ear has been able to detect nearly thirty, and judge of the meaning, are such as are common to all the bees, and by which, it is true, they can express the most diverse emotions, but which can never serve as the watchword of a colony of bees.

Others thought that bees recognize each other by the sense of touch, for they have often been observed to cross their antennæ in the hive, as if in the act of communicating something to each other. This view has a strong claim to probability, with this modification, that the sense of smell also has its seat in the antennæ, so that not the sense of touch, but that of smell, forms the means of mutual recognition. Now, if this same sense serves such a purpose, there must be in every hive a being that is capable of giving to all its inmates a peculiar and distinct odor. Without doubt we can consider the queen to possess this function, which, in passing hither and thither through the hive, gives to each and every bee the same odor, which act, as has been observed, takes place by the queen ejecting a fine fluid. This explains the fact that those bees, coming home honey laden, and whose odor is rendered less intense by flying through the air, and by coming in contact with so many flowers, can gain admittance even into strange hives, without being hindered thereat. The fact of their being loaded with honey is not the reason why the sentinel bees allow them to pass, but it is the neutralized odor which prevents the sentinels from distinguishing them from the bees of their own hive.

If we take bees that have, in consequence of fear, annoyance, or similar causes, filled themselves with honey in the hive, and put them in the entrance of another hive, they will, in spite of their being loaded with honey, be attacked and pulled out without much ado; a proof that it is not the honey carried by the bees, but some other factor which determines the acceptance or repulsion of a bee. The young bees which are generally readily accepted by neighboring colonies seem to to be infected by the odor of the queen as much as the older ones, which accounts for their immunity from attack. In the case of other beings, also, youth enjoys a certain indulgence. Why, then, should bees be so cruel to *their* young? Robber bees that enter a strange hive to carry its stores to their own are at first violently attacked and energetically repelled; but if they are successful several times, they can thereafter enter and leave the hive untouched. They have, in all likelihood, been infected by the odor of the queen during their stay in the hive, and therefore cannot be distinguished by the sentinel bees, which have probably soon accustomed themselves to the smell of the robber bees, because the latter generally enter a hive in large numbers.

The following, also, in itself a very striking fact, is easily explained if we accept the above supposition; namely, that bees from hives containing impregnated queens, unite neither among themselves nor with swarms having unimpregnated queens; whereas the latter kind of swarms unite with each other most readily, and their queens quietly engage in the decisive struggle. It is probable that the unimpregnated queen ejects none, or very little of the above-mentioned fluid, so that the odor of the bees which are with her is less marked.

Far from the hive, while gathering stores, bees are outspoken cosmopolitans, neither troubling themselves about their foraging neighbors, nor knowing envy; but they are impelled solely by their instinct to make the most of nature's treasures. At home they are jealous of every stranger; in the field they magnanimously give way to each other.

A Short Chapter for Beginners.

JUST WHAT THEY WANT TO KNOW.

We are often requested to give a short chapter for those who are just commencing the business of keeping bees, and we will now treat them to the following which was written for a family newspaper, and will answer many questions usually asked by the uninitiated, some of which occur in this very issue of the AMERICAN BEE JOURNAL:

If you observe a colony of bees a few minutes you will see that there are three different kinds of the insects, varying somewhat in shape and serving three distinct and exclusive purposes. One kind is a big, fat healthy-looking fellow, large of girth, and so blunt at its rear extremity that it looks as though part of its body had been chopped off. This is the male of the species, the despised drone which the world-over serves as a symbol of idleness. He is permitted to live only that he may enable the queen-bee to contribute to the increase of the hive, and, when that purpose is served, dies instantly. He is in a minority appropriate to his peculiar condition. It is estimated that 16 ounces of bees, which would fill a cup holding 5 gills, would number over 5,300. Of these perhaps not more than 175 would be drones. The drone has no sting.

Looking again at the colony you will see hundreds of bees smaller than the drone, with a very slender waist and a narrow body pointed in the rear. These are the workers, and they have stings. It was at one time thought that the workers had no sex, and they were known as neuters; but recent observations have demonstrated beyond a doubt that the workers are females, capable even of laying drone eggs.

Somewhere in or around the colony, and never very far distant, you will see a bee longer than either the drone or the worker, more graceful in outline, and altogether a superior-looking insect. This is the queen, the central figure of the colony, the controlling force, the royal ruler, and the egg layer. From a commercial standpoint the most important function of the queen is the last named. In a very temperate climate the queen will deposit eggs ten or eleven months out of the year, and in the warm, fine weather of this month or next, will lay 2,400 eggs a day. The queen may govern the sex of the bee produced from any given egg, and may produce drones without number independent of the co-operation of the male. A queen may live three or four years. Drones seldom die a natural death. Those hatched in the spring, and escaping the single duty they are called upon to perform, are killed by the workers in July or August, unless they happen to be in a queenless hive. In the latter case the workers evidently recognize the fact that the drone may be needed, and let him live. In a hive with a queen, the workers, when performing hard labor, often die when less than two months old. In a queenless colony, when they have little work to do, they sometimes live through their first summer, and even throughout the succeeding winter.

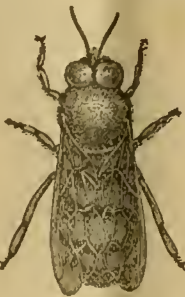
The bee eats various kinds of food, and necessarily has a complex feeding apparatus; there is a proboscis or trunk which is an extension of the lower lip, and which is thrust down into the cups of flowers for the sweets there to be found, or lapped in any fluids which the bee fancies. It has two stomachs. In the first it stores the honey gathered from flowers until such time as it is ready to yield it up, when it is ejected from the mouth, into which it is thrown from the stomach by the muscular contraction of the walls of the latter. The second stomach is used for the digestion of food.

Respiration is accomplished in a curious way. Instead of the air being taken into the body and acting upon the blood at a single point, as in the lungs, it reaches every part of the body through external air tubes with external openings. Without fresh air bees would die in a short time. The way in which ventilation is secured in a crowded hive, where the temperature ranges from 73° to 84° is strikingly illustrative of the intelligence of these wonderful insects. A certain number of bees, sometimes as many as twenty, are told off for this purpose. These fasten themselves by their feet to the floor of the hives, and there work their wings with tremendous speed, as if flying, and thus create a powerful current of air. Each bee works for about half an hour, when another takes its place, and thus contributes to the ventilation.

In the construction of honey-comb the bee uses large quantities of wax. This is a secretion of little pouches in the abdomen, and exudes from under the rings around the body of the bee in the form of plates or scales. These scales are removed when needed by the bee itself, or by some of its fellows. Bees themselves live upon the honey they take into their stomach, enough being reserved for their own sustenance when that intended for the comb-cells is ejected. But the young are fed upon the pollen or fertilizing dust of flowers, which is gathered by the bee, kneaded into a little ball, and placed in a cup-shaped hollow surrounded by hairs at the middle joint of each of the hinder legs. The hollow is called the basket, and in it the bee carries the pollen to the hive, where it is stored until needed. There it is mixed with honey, partially digested, and fed.

Scientists have made the architecture of the cells a subject of profound research, and some of the problems solved are as interesting as any to be found in mathematics. A study of a piece of comb will reveal unexpected wonders, and intensify the respect for the marvelous architects that planned, and the builders that constructed it.

The cells being constructed, the queen is ready to begin laying eggs. The cells are of different sizes and shapes to suit the character of the future inmates. Those intended for the working bee are the smallest. The drones have a little larger cell, and the queen-bee eggs are each given a royal apartment fully one inch high by one-third of an inch wide.



THE DRONE BEE.

For three days no attention is needed save that the eggs must be kept warm, and this the nurses make sure of by grouping themselves around the comb in which the cells are placed. At the end of the third day the egg has developed a small white worm which is the larva. The utmost care is taken of this worm. It is fed with the pollen and honey mentioned above, and the greatest solicitude is shown for its welfare. In five or six days it has grown to such a size that it nearly fills the cell, and it ceases to eat. Its nurses then seal up the mouth of the cell with wax, and for 36 hours the larvæ devotes itself to spinning a cocoon. Three days later it becomes a pupa, and every part of the future bee can be seen through the transparent covering. Inside of a week, or 21 days from the time the egg is laid, a perfect bee steps forth. Its nurses gather around it with every appearance of joy, caressing it with their tongues, and feeding it liberally. For a few days it remains in the hive, acting as a nurse, and then it begins its work as a honey-gatherer.

But if the egg is destined to become a queen, it is fed a peculiar jelly which seems to have the remarkable property of converting a worker egg into a queen if desired. A queen is born sixteen days from the day the egg is laid, but she is not always permitted to come out from her cell. The old queen hates her young rivals so bitterly that should they be permitted to come within her reach she would instantly kill them.

The nurses live in hopes that the old queen will swarm, which is to lead part of the colony out of the hive to a new home, and as long as there is any prospect of her doing so, they will protect the young queens. Should the queen-mother leave the hive for good, the young queens are liberated one by one a few days apart in order to prevent their destroying one another. Should two get out at the same time, they immediately fight until one is killed.

Official Report of U. S. Entomologist.

Bee-Forage a Necessity.

N. W. M'LAIN.

[The following is an extract from the Official Report of Mr. McLain to the United States Entomologist, for the year 1886, and now just issued by the Department of Agriculture, at Washington, in its "Reports of observations and experiments in the practical Work of the Division, made under the direction of the Entomologist."—Ed.]

If excellence in the bee is the chief factor in successful honey-producing, next in logical order is abundant, persistent, and cheap bee pasturage. Abundant pasturage is the amount necessary to satisfy the requirements of the number of colonies kept within a given area. Persistent pasturage is that which contemplates a variety of perennial honey bearing flora of hardy constitution and rugged habits, whose terms of blooming follow each other in succession continuously from early spring to late fall, thus lengthening out the season in which bees may gather surplus honey. Cheap bee-pasturage may be such as is furnished from natural sources produced in forests or by self propagating plants growing in waste places or upon lands of little value, and requiring little or no labor. Or, cheap bee-pasturage may be secured by cultivating fruit and field crops, the blossoms of which are valuable for honey-bearing.

As the forests of the country disappear, and the waste lands are being reclaimed, as the necessity for other honey-producing resources is felt, as the industry assumes more importance, and as the influence of competition is more sharply felt, great interest is shown in the subject of bee-pasturage. The number of days in each year in which bees can gather and store surplus honey will not average, except in exceptionally favored localities, above 30 or 35 days; the remaining time and energies of the bees being employed in gathering sufficient for the sustenance of the colony, and enforced idleness or non-productiveness. Enforced idleness, and the consequent waste of time, stores and energies sometimes result from a failure of the flowers to secrete nectar, even though the honey-bearing flowers are blooming in abundance, but usually the reason why the time is so short in which bees are able to store surplus honey is the lack of abundant pasturage. I have not had the time or the means to devote to bee-forage that the importance of the subject demands, but I have made a beginning in this department of experimental work which I hope to continue.

Among all the trees and shrubs which are cultivated generally throughout the United States by fruit-growers, the raspberry is commonly conceded to possess more value to bee-keepers than any other. A quarter of a mile from this station a market-gardener has four acres of raspberries. These bushes continued to bloom for ten days, and during that time, with the exception of two or three rainy days, a continuous procession of bees could be observed going and returning to and from the apiary, and a fine showing of honey was made in the hives, and the honey was of superior quality.

On account of the superior quality of its nectar, the ease with which the plant is propagated, its adaptation to all kinds of soil, and its value as a forage plant for grazing, white clover has, until of late years, stood without a rival in the estimation of honey-producers. About twenty years ago Alsike, or Swedish clover, was introduced into this country, and since then has been thoroughly tested both as a honey-plant and also for hay and pasture for all kinds of stock.

Mr. J. M. Hicks, of Indiana, says: "Alsike clover has no superior as a honey-producing plant, yielding the best and richest honey known, and as a hay crop it is not surpassed, often producing three tons of good hay per acre. The stems and stalks are much finer than those of common red clover, and cattle, horses, and sheep feast on it, eating it clean without waste. As a pasture for all kinds of stock it has no equal. It will grow on all kinds of land, clay or sandy, and does not freeze out as easily as red clover. It is quite similar to red clover in appearance. The first crop each season is the seed crop. The seed is about one-third the size of red clover, and 4 pounds is sufficient to sow an acre. The bloom is a beautiful pale, pink color. I have no hesitancy in saying that Alsike clover will produce 500 pounds of the richest and best honey per acre in a good season. I would recommend every bee-keeper to sow at least a few acres of Alsike clover."

Mr. W. Z. Hutchinson, of Michigan, says that it will pay to raise Alsike clover for honey alone upon land worth $50 per acre.

Mr. C. M. Goodspeed says: "I have grown Alsike clover on my farm and watched its habits closely. It is very hardy, of extra quality of hay, and a heavy seeder, reaching in rare cases 10 bushels per acre. In this locality the second growth seldom yields much honey, but the first growth just 'swarms with bees' for about three weeks, or from the time the rich blossoms open until the seed is ripe. In my locality it begins to yield honey shortly after white clover, and continues well into the basswood season. It yields twice as much honey as white or red clover."

Mr. D. A. Jones, of Canada, says: "I think too much can scarcely be said of Alsike clover as a hay and honey crop, and many of our farmers are waking up to the fact that it is to their interest to cultivate it largely in preference to almost any other crop. Red clover will soon be a thing of the past, as Alsike clover seed is now in great demand, not for seeding purposes, but also for use in dyeing. I am informed that large quantities are being shipped to Europe for that use."

Mr. A. I. Root, of Ohio, and Mr. L. C. Root, of New York, both speak of Alsike clover as the most valuable variety of clover for hay and pasturage, and recommend its cultivation as being of the first importance to bee-keepers. Statements testifying to the unequaled value of Alsike clover, both for hay and grazing purposes, and as a most valuable honey-plant, might be indefinitely multiplied. I cannot too strongly urge the bee-keepers of the United States to provide abundance of this forage for their bees, both by sowing the seed on their own premises, and also by inducing their neighbors to cultivate this variety of clover as the best for all purposes.

Sweet clover (*Melilotus alba*) abounds in this locality. This is a hardy plant of wondrous persistence, continuing in bloom from about July 1, until killed by frost. It is adapted to almost any kind of soil. In this part of Illinois it grows in rich soil by the wayside, or in deserted stone-quarries with equal luxuriance. As the plant will grow without any cultivation in by-ways and waste places, wherever the seed can obtain a foothold, and is a perennial, it is rightly reckoned among the number of excellent and cheap bee-forage plants.

Sweet clover will endure drouth well. During the long drouth of last season, bees in this neighborhood would have been entirely without resources for many weeks together had it not been for sweet clover. The quality of the honey is excellent, and under ordinary conditions the yield is altogether satisfactory. Much apprehension has been felt among farmers lest it become a noxious weed. Observing how readily the seed is carried in the mud on wagon-wheels and horses' feet in the spring, when the roads are bad, and the entire space in the highways is used for travel, belief has obtained that the fields would soon be invaded. Careful and continuous observation of the facts for five years past has convinced me that fears of trouble from this source are groundless. In but one instance have I seen sweet clover invade a plowed field, and that was for a distance of 3 rods on both sides of an old road leading into the field, and the seed had been carried in on wagon-wheels. This plant, being a biennial, is easily exterminated when desirable. I would recommend bee-keepers to provide an abundance of this forage, by scattering the seed in waste places, and by the roadside. Sweet clover is much more sightly and useful, and less objectionable, in every way, than the weeds which ordinarily cover the roadsides.

Pleurisy-root (*Asclepias tuberosa*) is a honey-bearing plant indigenous to nearly all parts of the United States, but its growth has not been encouraged for the reason that its value to the honey-producer has not been generally known. The plant is a perennial; the top dies and rots, a new growth springing up each year. It is commonly regarded as a harmless prairie-weed. The deep, red blossoms hang in clusters. The plant is very hardy, and of a rugged growth, growing luxuriantly in all kinds of soil. The honey is of the finest quality both as to color and flavor. Mr. James Heddon, of Michigan, speaking of pleurisy-root, says:

"If there is any plant, to the growing of which good land may be exclusively devoted for the sole purpose of honey-production, I think it is this; I would rather have one acre of it than three of sweet clover. It blooms through July and the first half of August, and bees never desert pleurisy for basswood or anything else. The blossoms always look bright and fresh, and yield honey continuously in wet and dry weather. Bees work on it in the rain, and during the excessive drouth of the past season it did not cease to secrete nectar in abundance." I have had some observation and experience with the plant, and, having secured seed, I expect to test it in different kinds of soil next season.

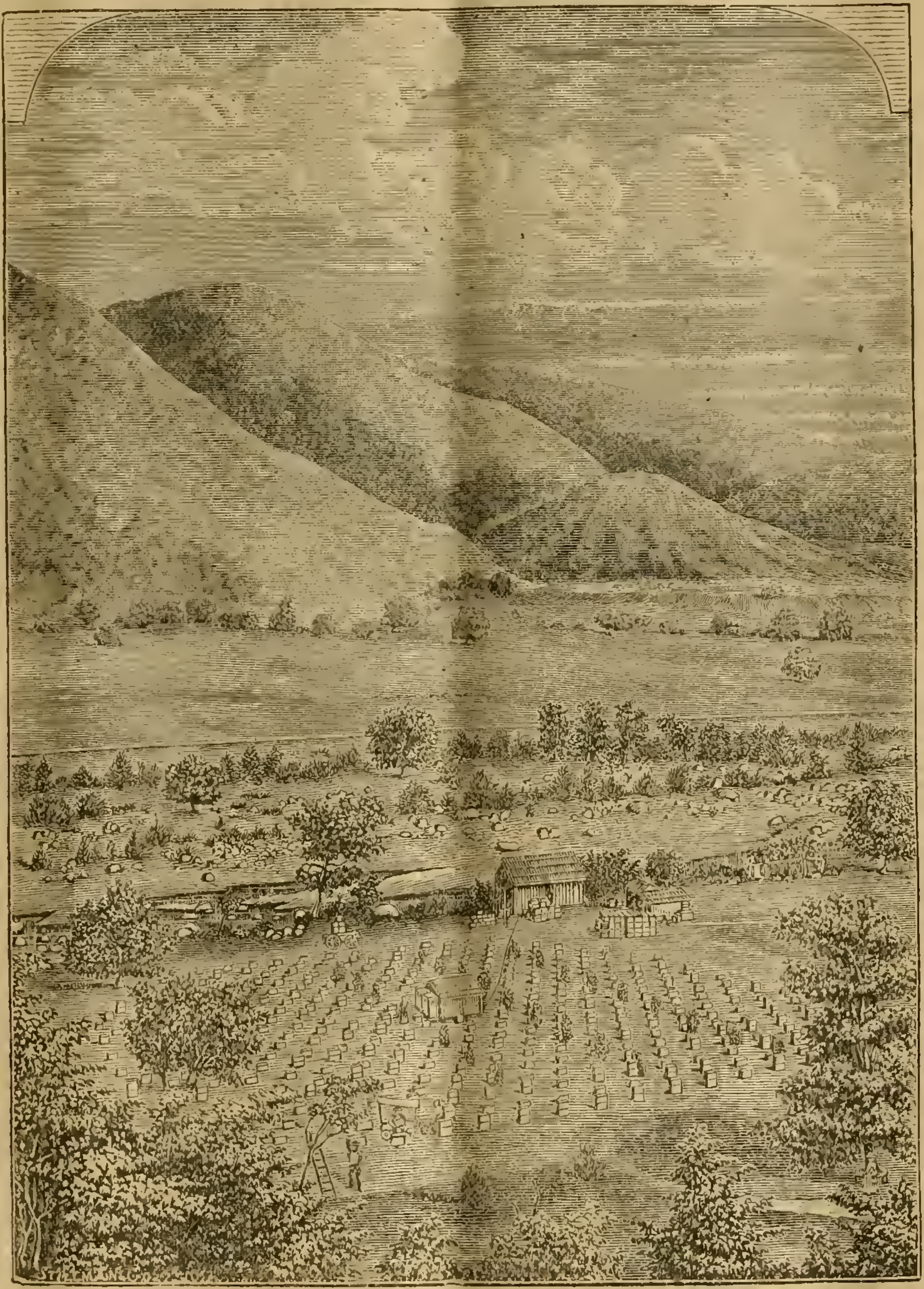
For two years past I have cultivated a plot of motherwort (*Leonurus cardiaca*) and I prize it highly as a honey-plant. Bees work on it continually all day, and every day, unless it is raining quite hard. The summer of 1885 it continued in bloom six weeks. Last summer it bloomed, but was soon ruined by drouth.

At the annual meeting of the North American Bee-Keepers' Society held at Detroit, in December, 1885, a committee, of which I was a member, was appointed by the association to investigate the merits of a new plant being cultivated by Mr. Chapman, of New York, who was present, and represented that the plant was of unusual value to honey-producers. Being instructed by you so to do, I met with other members of that committee on July 28, and our report was published.

Bee-Ranches in California.

By favor of Messrs. Forth, Easley & Reppy, of San Buenaventura, Calif., we have a copy of the Ventura *Free Press*, from which we copy the following article on the honey-resources of that county, and the engraving showing the bee-ranch of Mr. R. Wilkin, a well-known writer on apiculture:

When California was admitted into the Union of States, the honey-bee was unknown here. The first hives of bees were brought across the plains and commanded fabulous prices. But so finely adapted is this country to the production of honey, that swarms can be found in nearly every suitable tree, as well as in rocks, crevices, etc.



BEE-RANCH OF MR. R. WILKIN, ON THE SESPE.

The mountains yield the sages and other bloom which affords the finest yield of honey. The mountainous regions which greatly predominate in the State, will ever be a prominent bee-pasture, while the wholesale slaughter of bees by cold, which is frequent in the States east of the Rocky Mountains, never occurs here. While the mountains abound in white, purple and black sage, wild alfalfa with wild buckwheat, sumac, and other summer bloom, the foothills and valleys in the spring are covered with alfileria, the bloom of which, with mustard, enables the bees to fill their hives with bees by the time the finer honey-producing plants are in bloom. Honey is collected every month in the year. Southern California is noted for producing more and finer honey than any other portion of the world.

There are probably nearly 20,000 colonies of bees in Ventura county. Three years ago the county produced about 3,000,000 pounds of honey, but the next year was not so favorable, and but about half that amount was obtained. In many cases 400 pounds to the colony have been produced One apiary of 700 colonies, and surrounded by bees amounting in all to 1,800 colonies, within the radius of one or two miles, averaged 130 pounds each. Another apiary containing 445 colonies in the spring, increased to 1,200, and yielded 80 tons of honey.

The larger portion is sold by commission merchants in San Francisco, orders being received by them from all parts of the world.

This industry can be greatly extended in this country. The best locations are at the mouths of canyons, where water is plentiful. Some apiarists cultivate a little land while taking care of their bees, and others indulge in stock-raising.

For the American Bee Journal.

Foul Brood—A Criticism.

J. E. POND.

I do not wish to be deemed disputatious, or to open up an acrimonious discussion, but I cannot believe that Mr. Hoyle's ideas in regard to "foul brood," given on page 393, are correct; and for the reason that they do not agree either with my own experience in the matter, or the views I have adopted after comparing my experience with that of others.

My first practical knowledge of foul brood was in 1868, and as that knowledge was gained through the loss of some 25 colonies of first-class Italians, at a time when I could have sold every colony for from $25 to $35 each, I feel that I have the right to think that I know something about that disease, and its symptoms. As to remedies and means of cure, I know absolutely nothing, save what I have learned by study, and I trust that I may never know more than I now do of the disease.

The disease was brought into my own apiary through feeding Cuban honey, that was not thoroughly scalded. This I know, because every colony so fed showed the disease in early spring, while those not so fed had no symptoms till two or three months later. At first I did not know what was the trouble, and of course I took no means either of prevention or cure; the result being that by the first of August every colony but one was infected, and, strange to say, this particular one never took the disease at all; probably because from its location and strength; it neither visited, nor was visited by the contaminated colonies.

Mr. Hoyle says: "I have known for nearly two years that old bees, as well as the larvæ, would be diseased"—meaning with foul brood. Now my experience is just the reverse of this. In my own apiary I have never known a diseased larva to emerge from its cell, or a mature bee to show any sign whatever of that disease; and from the very name given the disease, it cannot affect mature bees; if it does, it is of course wrongly named. I do not doubt that Mr. H. "mashed a bee that stung him, and that its excrement was black;" I do not doubt, either, that Mr. H's hives contained honey that was death to his mature bees; but I do doubt his conclusion, that honey-dew will ever of itself cause foul brood; and I do know, without being a scientist, that foul brood is sometimes caused by bacteria. I know this because I have treated it, and tested it very carefully.

And further, my experience teaches me that while a "bee-keeper can (perhaps) have the disease in his apiary every year....and never notice it," it will not be many years before he will have no bees whatever to notice, unless he adopts and uses some of the remedies that have been proved to be efficacious in causing a cure. If the microscope did *not* show bacteria in foul brood, the fact that the remedies urged are of the nature they are, is sufficient proof to myself of bacteria.

In fact, not only my own experience, but the experience of every bee-keeper who has seen and known foul brood, and given the public the benefit of such experience, disproves the ideas stated by Mr. H.; and while perhaps he may be correct, and all the others, including Mr. Frank Cheshire (who certainly has given the subject more attention, scientifically, than any other, to my knowledge), wholly wrong, I still cannot believe him right without some little proof.

I do not know whether Mr. H. had foul brood in his apiary or not; I hope it may prove that he did not, and I trust that his advice in boiling suspicious honey will be taken, and for myself I will add to that advice: Do not feed it to your bees after it is boiled, if there is a chance that they will not use it up at once.

One question I must ask Mr. H., viz: How long does it take his bees to seal up their larvæ? He says, on page 394, that a close observer "will detect foul brood in discolored larvæ at least *three weeks* before he would see sunken caps."

As our editor well says, it is very important that we should all know the phases of this dread scourge of the apiary, and a perusal of Mr. Frank Cheshire's work will prove of the greatest value, as it is the only really scientific work we have from the pen of one who has studied the subject carefully from a scientific standpoint.

As I said at the start, I have not written for the purpose of provoking a discussion, but as Mr. H's article is a mere mass of statements, and as those statements are wholly at variance with the scientific opinions heretofore made public, I for one (and I presume all the many readers of the AMERICAN BEE JOURNAL) would like also to hear the proofs as we are striving to learn all the facts, not only in regard to foul brood, but to every department in bee-keeping.

Foxboro,⊶ Mass.

System and Success.

☞ All who intend to be systemstic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)............	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

First Basswood Blossom, etc.—M. O. Tuttle, Osage,♂ Iowa, on June 26, 1887, writes:

I send you the first basswood blossom that I have seen this year. It opened to-day. The forest is full of it, but it seems to me it is coming on early. Bees have been getting a little honey for the past ten days—some from white clover—and I see they are at work vigorously on the sumac. I have heard of swarming in the county, where the bee-yards have but few colonies. I have prevented it so far quite easily, but now will come the fun.

Light Crop Indicated.—S. Shoup, Coloma,♀ Mich., on June 28, says:

The present indications are that we shall have the lightest honey crop for many years. Clover is drying up. Basswood will bloom by July 1, and unless we get rain the yield from basswood will be very light, and we have but very little honey on the hives now. Swarming is over in my yard. Bees are in fine condition.

Prospect Good for Basswood.—Dr. G. L. Tinker, New Philadelphia,⊶O., on June 27, 1887, writes:

Bees are doing only moderately well here, so far, but the prospect is good for basswood.

Development of Queens.—Patrick Keating, New Almaden,⊷ Calif., on June 20, 1887, writes:

I would like to have this question answered in your JOURNAL: In how many days does the queen begin to lay eggs after she is hatched, and drones are flying? My bees are always fighting, not for want of honey, as they are getting it nine months and more out of every year here in California. They are hybrids.

[About the fifth day after the queen emerges from the cell, if the weather is pleasant, she may be seen crawling about the entrance of the hive, and if the next day is propitious, she may try her wings some from the alighting-board. She will appear somewhat excited, but after awhile she will mount up and circle around, increasing the distance each time, to mark the hive, and insure a safe return from her wedding flight.

In the warmest part of the afternoon, when the drones are flying, she will spread her beautiful wings and soar into the air to mate with a drone. If successful, she will bear the marks of it on her return; if not, she will, after a time on the same day, come out again and again, until it is accomplished. She will then return, going quietly into the hive, and in a day or two she will commence to lay; so that, generally, from 8 to 9 days after emerging from the cell, the queens are laying. Should the weather be unfavorable, and she fails to meet the drones within about 20 days, she will become only a drone producer.—Ed.]

Basswood Promising.—Dr. A. B. Mason, Auburndale,⊸ O., on June 25, 1887, writes:

Bees are in fine condition, but have no surplus from white clover. Linden (formerly basswood) looks exceedingly promising.

Severe Drouth.—M. M. Rice, Boscobel,♀ Wis., on June 24, 1887, writes:

Bees are not doing anything this season. It is so very dry—we have had but one good rain this spring. Our pastures are all dried up, and clover is all dead. Basswood is two weeks earlier than usual, but if we do not have rain we will have no honey from that source. Bees have not honey enough in their hives to last two weeks. The outlook is very discouraging.

More Rain Wanted.—Jas. W. Mills, Melleray,⊶ Iowa, on June 19, says:

We had a tolerably good rain last evening—the first for some time. This part of the country was suffering badly for the want of rain, and we want more. Bees have done poorly.

No Surplus Honey.—A. F. Stauffer & Co., Sterling,⊸ Ills., on June 25, 1887, say:

Bees are hardly making a living. There has not been a pound of surplus honey taken in this neighborhood, so far this season.

A Swarm of Drones, etc.—E. Jarvis, Fairgrove,⊶ Mich., on June 23, 1887, writes:

A swarm of drones went from one hive to another on June 22, to one from which a swarm issued the day before. Has any one known such a circumstance? Two of us saw them come out and go into the other. Bees have done very well here, and especially in swarming. There is some surplus honey. In time of dandelion bloom, there was not much else in bloom, and I took from the hives 10 pounds of honey, which I think was all dandelion, as it was very yellow and tempting to look at, and not much stronger than raspberry honey, which came next. There is a great deal of white clover here, but it seems it is not overflowing with honey. In natural swarming does the old queen lead out the first swarm?

[Yes; the old queen goes with the first swarm, though she does not *lead* the swarm; in fact very often she is the last to leave the hive after the swarm has left, and not finding the queen with them, the bees return to the hive to try it again, and sometimes again and again. If unsuccessful then, the bees will generally wait for a new queen to be hatched, and take her with them.—Ed.]

Linden and Sweet Clover.—C. H. Dibbern & Son, Milan,⊸ Ills., on June 23, 1887, write:

The season here may as well be put down as an entire failure, as far as surplus honey is concerned. Although our hives have been overflowing with bees since early in May, yet they have not held their own in weight. Linden gave us some honey; but it came so early, and was of so short duration that the bees made but a sorry showing in the sections. The linden is now about done blooming, and sweet clover is just opening, but there is not enough of it to give us any surplus honey. Altogether the outlook in this part of the country is not encouraging. The general report is, "few swarms and no honey."

[How remiss have they been in their duty, who have neglected to provide their bees with the abundance of pasturage which sweet clover gives.—Ed.]

Basswood Full of Buds, etc.—J. W. Buchanan & Bro., Eldora,⊙ Iowa, on June 23, 1887, write:

This spring has been the hardest on bees that we have ever experienced. In April we put out 19 colonies of bees, wintered in the cellar and a cave. We lost in wintering 18 colonies, and since putting them out 14, making a total loss of 32 out of 37 put into winter quarters. All left plenty of honey in their hives; not one starved. White clover is a failure so far this spring and summer, but we have some hopes for it yet. Bees are working on sumac now, and basswood is commencing to bloom. It has been quite cool for the last two or three days, and there seems to be no honey in the blossoms as yet. The trees are very full of buds, and if the weather should prove favorable, we look for a good flow of honey from basswood. Some readers may say, "If I should lose so heavily as that, I would quit the business." But we do not propose to do so. We are going to keep bees any way! We shall make it win after awhile. I am glad to see that the editor takes so decided a stand on the "Kissing Bees" articles. It seems to us that this concerns all bee-keepers, and I think he will be pleased to know that he has their approval.

Hoary Vervain, etc.—T. M. Herrick, Woodstock,⊸ N. Y., on June 22, 1887, says:

I send you a sample of flower which grows abundantly in this locality along the streams, and on which our bees work eagerly. I have noticed them working in great numbers late in the afternoon on it. Please inform me through the Bee Journal what it is, and if it belongs to the known famous honey-plants. White clover is just beginning to bloom in this section. Dry weather in May prevented much early honey-gathering, and therefore prevented early swarming; but they are doing better now, and most of the colonies are storing in the sections. I wintered 26 colonies on the summer stands, and lost none, all coming out strong but one, which was kept too warm with a quilt stuffed with cotton under the chaff packing.

[The stem and flower is that of the hoary vervain (*verbena stricta*), which grows abundantly along the streams, and in barren waste places in the Northwest. It grows 2 or 3 feet high, and has a dense spike of blue flowers. It is a good honey-producer.—Ed.]

Very Little White Honey.—John A. Thornton, Lima,⊸ Ills., on June 23, 1887, writes:

Our prospect of getting any white honey in this locality is very slim. My bees were in most excellent condition when clover began to bloom, but although there was an abundance of white clover bloom, bees scarcely gathered enough to fill their brood-chambers, and get well started to work in sections before the yield was past. I think the most there was secured came mainly from red clover, as more bees were at work on the red clover, seemingly, than on white clover. Basswood is in full bloom at present. The past two days has been so cold, and strong winds from the north, that no honey from that has as yet been gathered, and at its best there will not be much, on account of the scarcity of trees. Swarming did not amount to much; I have had 20 swarms from 130 colonies that were worked for comb honey, in two apiaries 5 miles apart. I should not put our average per colony, of surplus honey, at over 10 pounds, and expect it will be less when taken. I should be glad to hear from other localities, through the Bee Journal, in regard to the yield of honey up to this time. The severe drouth that we have had I suppose caused the scarcity of nectar in clover, and changeable weather, from sultry heat to almost frosty nights part of the time, no doubt helped to cause a scarcity of nectar. Our bees are in good condition, if any unforeseen flow of honey does come.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to **60** cents, postpaid. Subscription for one year and the binder for $1.50.

◆

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ¼ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Where to Keep Honey is the title of Leaflet No. 3. For prices see the second page of this paper. If you wish to see a sample of it before purchasing, send for it.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—Prices are about 10@12c. for comb. Extracted, 5@7c., according to quality and packages. Stocks and demand light.
BEESWAX,—22c. R. A. BURNETT,
June 9. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.
BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5@5¼c; light amber, 4@5c. Comb, extra white, 12@14c.; amber, 7@10c. Market firm.
BEESWAX.—18@20c.
Jun. 25. SCHACHT & LEMCKE, 122-124 Davis St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, 12@13c.; second quality, 10@11c.; and buckwheat unsalable at 8@9c. Extracted, 5@6c.
BEESWAX.—25c.
Apr. 20. A. C. KENDEL, 115 Ontario St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.
BEESWAX.—Steady at 20½c. for prime.
May 29. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber, 3¾@4½c. Market quiet.
BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; in white in kegs and barrels, 6@6½c.; dark, 4 to 4½c.; amber, in barrels, 4½@5c. Demand limited and supply small.
BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: White comb, 9@12c.; dark 5@7c. California comb, 8@9c.; extracted, 5@8c. Sales large and demand good.
BEESWAX.—23@24½c.
McCAUL & HILDRETH BROS.,
May 10. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts,; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Market almost bare of comb and extracted honey.
Jun. 16. CLEMONS, CLOON & CO., cor 4th & Walnut

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales slow.
BEESWAX.—26 cts. per lb.
Apr. 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.
BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

Dr. Miller's Book, "A Year Among the Bees" (75 cts.), and the BEE JOURNAL for one year ($1.00), both of which we will club for only **$1.50**.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

◆

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 **cents** per lb. Orders solicited.

◆

Bee-Keepers, write to the Hub Mfg. Co., New Hampton, Iowa, and learn how to free your honey-houses from Bees, Flies, etc., for 8⅓ cents per window. "A patent attachment for any window." 26A2t

Advertisements.

FINE YOUNG ITALIAN QUEENS.—
☞ Two for $1; Single one, 60 cts.
27A1t **WILBER G. FISH, Ithaca, N. Y.**

BY Return Mail.—Italian Queens, Tested, $1; Untested, 60c. Bees per lb., 50c.
20Atf **GEO. STUCKMAN, Nappanee, Ind.**

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

DR. TINKER'S SPECIALTIES.

THE finest **WHITE POPLAR** SECTIONS and the best **PERFORATED ZINC** ever offered to bee-keepers. Our new machine makes 50,000 perforations in a day. We also claim the finest strain of BEES for comb honey—the Syrio-Albinos. Price-lists of **QUEENS** and Supplies free. Samples of sections and zinc, three cents.

Address, **DR. G. L. TINKER,**
27Dtf NEW PHILADELPHIA, O.

4,103 POUNDS OF HONEY,
GATHERED
BY 40 COLONIES IN 7 DAYS!

WE have purchased L. C. Root's celebrated breeding stock, which together with our own, gives us the choicest collection of Italian bees in the world, and one that has the

Best Honey-Producing Record Extant.

We will spare a few full Colonies and Nuclei containing some very choice breeding queens of this stock. We make a specialty of rearing ONLY FIRST-CLASS ITALIAN BEES and QUEENS at the

KNICKERBOCKER BEE-FARM,
G. H. KNICKERBOCKER, Proprietor. S. M. LOCKE, Manager.

Our Circular for 1887 contains an important letter (regarding these bees) from L. C. Root, that every bee-keeper should read. Send for it before ordering Queens elsewhere. Address,

KNICKERBOCKER BEE-FARM,
14Ctf PINE PLAINS, Dutchess Co., N. Y.

HEAD-QUARTERS IN THE SOUTH
FACTORY OF
BEE HIVES, &C.
Early Nuclei & Italian Queens.
☞ Ninth annual Catalogue now ready.
5Ctf **PAUL L. VIALLON**, Bayou Goula, La.

REWARD!
TO WHOM IT MAY CONCERN:

I **HEREBY** offer $1.00 per ratio for every one hundred feet of wire-cloth, to any one who will find parties purchasing my Patent Wire-Cloth Separator from unauthorized dealers—until further notice.

Bee-keepers will save money, and perhaps annoyance, by sending for my Descriptive Circular, before purchasing.

Address, **N. N. BETSINGER,**
9C6t MARCELLUS, Onondaga Co., N. Y.

CARNIOLAN QUEENS ONLY;

BRED in large apiary of Carniolan Bees, from Benton Select Imported Stock—$1.00 each. Carniolans are the gentlest and best honey-gatherers known. Send for Circular describing Carniolans. (Mention this paper.)

S. W. MORRISON, M. D.
25Dtf Oxford, Chester Co., Pa.

Established 1857.
BAKER & CO.
Satisfaction Guaranteed
DESIGNERS AND
ENGRAVERS ON WOOD
CORNER OF
FOOT BLOCK. CLARK & MONROE STS. CHICAGO.
DEALERS IN
ENGRAVERS TOOLS & SUPPLIES.

1887. ITALIAN QUEENS. 1887.

6 **WARRANTED QUEENS FOR $5.** If you want Nice, Bright Queens, the progeny of which are good workers, and could be seen working on Red Clover at any time within the last two years, send for my Circular.
J. T. WILSON,
1Ctf NICHOLASVILLE, KY.

BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

A GREAT SCHEME.

CAN we sell honey to the millions? Investigate our new peculiar 5-cent Package for extracted honey, eaten from the hand without knife, spoon or stick, as cleanly as to bite an apple. The first and only cheap, successful package ever invented.

We also have the first Chromo Card especially for bee-keepers. Bees, implements, etc., elegantly printed in eight colors. Italian Queens, splendid Foundation, Bees in Heddon hives, for sale and all represented on our Card. Circulars and cards giving full information free. Package of 10 Cards 10cts. Sample Honey-Package with candied honey, 12 cts. Now is the time to look these things up for the coming season.

Address, **J. H. MARTIN,**
4C1y HARTFORD, N. Y.

Bee-Hives, Sections, Section-Cases,
Foundation & other Apiarian Supplies.
Send for our new Catalogue with description of
THE "SUCCESS HIVE,"
which is fast gaining the favor of many bee-men.

ALBINO QUEENS and BEES for 1887.

It should be remembered that we are also Head-Quarters for the "**Albino Queens.**" We also breed **Select Italians.**

Address, **S. VALENTINE & SONS,**
14Ctf HAGERSTOWN, Wash. Co., MD.

ENGLISH OPINION.

HOW the genuine Bingham Bee-Smoker is looked upon where it is not patented and any one can make and use and sell just such Smokers as they please or think best:

Thomas Wm. Cowan, Editor of the Weekly "British Bee Journal," after devoting **five full columns with nine cuts** illustrative of said Bingham Bee-Smoker—space that would have cost us more than $100—says: "A real Bingham Bee-Smoker will send a **greater volume of smoke,** and that **to a greater distance,** than **any other Smoker we know.** We have had such a Smoker **in use since 1878,** and although we have been obliged to renew the barrel, which became worn through from constant use, nothing has been done to the bellows, which is just **as good as it was on the first day** we had it. A Smoker like this will burn almost any sort of fuel that will produce smoke when smoldering; we use old rags, brown paper or sacking; but peat, decayed wood, or even ordinary fire-wood will do when it is kindled."

For the lowest and highest priced Smokers—and the only ones that last and do not go out—sold in the United States, send card for Circular, to

BINGHAM & HETHERINGTON,
10Ctf ABRONIA, Allegan Co., MICH.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly*, to

A. I. ROOT, Medina, Ohio.

JUST PUBLISHED,
"PRACTICAL TURKEY RAISING"

By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL, Publisher, 69 Dearborn St., Chicago, Ill.
19Ctf

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1888.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.

THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

UNTESTED Italian Queens.—Single Queen, 65 cts.; 5 for $3.00; 12 for $6.50. **BEES** per lb., same price as Queens.
26Atf **I. R. GOOD,** Nappanee, Ind.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

PATENTED, June 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

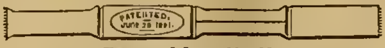
☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis


PATENTED, June 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

HUMPHREYS' HOMEOPATHIC SPECIFIC No. 28

In use 30 years. The only successful remedy for

Nervous Debility, Vital Weakness,

and Prostration, from over-work or other causes. $1 par vial, or 5 vials and large vial powder, for $5. SOLD BY DRUGGISTS, or sent postpaid on receipt of price.—Humphreys' Medicine Co., 109 Fulton St., N. Y.
16A12t

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at $12.50 per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity. All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

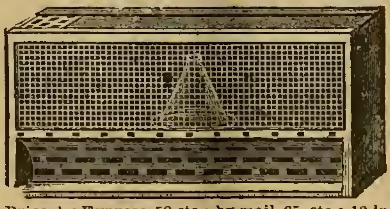
SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BY RETURN MAIL!

SIX Warranted Italian Queens................ $5 00
Fourteen Warranted Italian Queens.......... 10 00
☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen, ... $1.00
" 2 pounds " " 2.00
" 3 " " " 2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 *oz.* **Glass Jars** ***$5.25*** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case, Send for Catalogue.*

A. O. CRAWFORD,
Box 428. **South Weymouth, Mass.**
21D10t

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

DESIRES to call attention to the typographical neatness and "get up" of his little book,

"THE PRODUCTION OF COMB HONEY."

It is printed from new type (brevier); the matter leaded; the paper is heavy, delicately tinted and super-calendered; and the press-work is a "credit to the craft." But it is the cover, which is bright-yellow card-board passed through a comb foundation mill, that has brought forth the most enthusiastic enconiums. The work is very nicely done, and, at the first glance, the cover would almost be taken for foundation; while the beautiful twig of basswood upon the back of the cover and the artistic lettering upon the front, printed as they are upon a corrugated surface—all combine to give the book a peculiarly neat and tasty appearance.

Dr. A. B. Mason writes:—The cover is nice, printing *fine*, and contents *grand*.

Dr. C. C. Miller says:—Nothing less than a genius would have gotten up that cover.

E. Kretchmer says:—It is a surprise, in style workmanship. Nothing could be added to improve it.

Louis Werner writes:—It is the best bee-book I ever had, and I do not see how you can print such a neat book for so small a price.

James Heddon writes:—Your book is a "dandy." The "get up" is nowhere equaled. You have outdone us *all* on the book problem, and I am *glad of it*.

Chas. Dadant & Son write:—The book is at hand, and though we do not agree with all it contains, we must say that it is as neat and tastefully gotten up as anything we ever saw.

The *Bee-Keepers' Magazine* says:—"The Production of Comb Honey" is the title of a unique little work of 45 pages, by the pen of W. Z. Hutchinson. Mr. Hutchinson struck a happy idea when he designed the cover of his work.

Prof. Cook offered congratulations again and again, saying:—It is decidedly the most unique little thing I have seen in a long time. Why, that cover *alone* ought to sell it, to say nothing of the good things *inside*.

The above are fair specimens of scores of similar testimonials that I have recieved, *unsolicited*.

☞ Reader, if you wish to see a little typographical "gem," send 25 cents for, "The Production of Comb Honey."—Stamps taken; either U. S. or Canadian.
25Atf

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. July 13, 1887. No. 28.

I Live for those who love me,
  For those who know me true,
For the heaven that smiles above me,
  And waits my coming too ;
For the right that lacks assistance,
  For the wrong that needs resistance,
For the future in the distance,
  And the good that I can do.

* * *

The Report of the second year's operations of the National Bee-Keepers' Union is published, and has been sent to all members. Others can obtain a copy free of cost at this office.

* * *

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

* * *

Mr. Ivar S. Young, of Christiania, Norway, editor of the Norwegian bee-periodical, intends to visit America about the end of August, in the interest of practical and progressive apiculture. He would like to visit some apiaries while here. Invitations may be addressed to this office. A visit from Mr. Young will be quite an honor as well as a great pleasure. He speaks English as well as his own language.

* * *

White Clover and Basswood have not yielded over one-fourth of the usual crop of honey on an average this season, on account of the severe drouth. The copious rains of the past week, which have extended nearly all over the Northwest, have materially improved the prospects for a good crop of fall honey. Swarms have not exceeded 10 per cent. This is our estimate from the reports which have been received thus far. We want to caution all who may have honey to sell, not to put it upon the market until after the hot weather—then the prices will naturally advance.

That Misnomer a "Bore."—Mr. G. W. Demaree appears to have put on his "war paint," and already has taken the "war path" on the naming (or misnaming) of extracted honey. In the *Bee-Hive* for July he remarks as follows :

> City people are used to high-sounding misnomers, but not so in the rural districts. This class of bee-keepers are going to kick like blazes when they see the high-sounding misnomer slipping away. Mr. Newman, at the head of the leading bee paper of the country, has showed his shining metal already. "Extracted" will die hard, but it must go if its death three shakes the earth. We must batter away till foolish sentimentality gives way to common sense and common interest. Let us who have found the misnomer a bore to us, and an injury to our pursuit, drop the name "extracted," as Mr. Pinkerton has done, and very soon our numbers will increase, and a more appropriate name for honey out of the comb will take its place.
>
> There is one thing morally certain, time has shown pretty clearly that if all the admirers of the name "extracted" were to go out into the world "two and two" and preach "extracted honey" till the "tattoo of life" was beaten away, the world would still look at the whole thing as a fraud, and rightly, because the name "extracted honey" itself is a fraud.

This statement of the case is very unfair, ungenerous, unkind and untrue. Mr. Demaree knows very well that we have never even defended the term "extracted" as a name for "honey out of the comb," much less have we shown our "shining metal" to *fight for it !* and we hereby challenge him to show a sentence of ours to substantiate his assertion !

On the other hand, while we use the word "extracted" (because it is the best we have so far), we have often objected to it, as we did last week on page 421. On page 291 we used this language :

> Until a better name—one that can be truthfully applied to it—can be found or invented, we must stick to the name "extracted honey." Not that it is unobjectionable, but it is the best that has been presented so far? The chief objection to it is the fact that there are now so many "extracts" on the market, and some people think that this is the "*extract of honey*"—not the real thing ! We would like a change—but it must be also *an improvement !*

Had Brother Demaree said that we objected to his pet name, "liquid," that would have been true, for this was our argument on page 291 :

> The only objection to calling it "liquid honey" is the fact that very soon after it is taken from the combs, it granulates, and then it is *not a liquid !* As well might you call ice *liquid water !* as to call this candied-sweet *liquid honey !* It would be an unfortunate misnomer ! !

We fully agree with Mr. Demaree that "foolish sentimentality" must "give away to common sense"—even if it be *liquid* sentiment !

If he wants some one with gleaming steel to fight with over the name "extracted," he must find some *other* man—some *new* man—we are now too *old* for that ! Besides, we have placed ourself on record, over and over again, as looking for a new name for "honey taken out of the comb," and even last week used this language which is both plain, positive, and to the point :

> True, Bro. Demaree, the word extracted is objectionable, as we stated on page 291. We want a better name, and must discuss the appropriateness of such names as are *used*, whether *proposed* or not ! Liquid is not the word—will not be acceptable—and will not be adopted. Bro. Demaree, will you please give us something better, and then we will give you in return a rousing "vote of thanks." We want a change—but it must be for the better.

We much prefer to call honey out of the comb, simply "Honey," and that not taken out, "Honey in the Comb." Now will some one else try to suggest a new name ?

* * *

A Protest.—Mr. L. Highbarger, of Adeline, Ills., writes for publication the following :

> I see that the notice is published calling a union convention in Chicago of the "North American" and "Northwestern" Societies of bee-keepers Nov. 16 to 18, 1887.
>
> Now, as a member of both associations I protest against that time as being unsuitable, for the reason it will come when we should be putting our bees into winter quarters ; that is, in the last half of November.
>
> Another reason : There are quite a number of farmers who keep bees, and could not attend, for the reason it will be in the corn harvest.
>
> There are a great many other objections that I could enumerate. Why not hold it in the month of October? It is not a busy time, and is a much more pleasant time of the year. We can get reduced rates during the Chicago Exposition.
>
> I want to hear from members of both associations. Let them speak out and say which would be the most preferable time.

The reason for selecting Nov. 16 to 18 was that in the second week of the "Fat Stock Show" there would be reduced rates on railroads ; but if this time is *seriously* objectionable, the time of the Exposition might be selected, which is from Sept. 7 to Oct. 22. Another reason for low railroad fares then, is that in October there is to be a Grand National Military Encampment and Jubilee in honor of the fiftieth anniversary of the incorporation of Chicago as a city.

Any time will suit us. We only desire to have it at the most convenient time for bee-keepers generally. The officers of the societies will no doubt be glad to accommodate all, or as nearly so as possible. So let there be a shower of postal cards stating preferences. You may send them to this office, and we will present the result to the President and Secretary. Remember the majority rules ; and if you do not *act* on this suggestion, you must not complain at the result. Now *state* your views on this matter *at once.*

* * *

Forgive them; they know not what they do.—The anti-bee craze has set in, and is sweeping over the entire country. Every day we hear of a new case of expulsion or trouble of some kind as the result of ignorance, on the part of the persecutors, of the great good done by bees to fruit. This reminds us of a story. An Indiana farmer, who told his boys to burn every bumble-bee's nest they found on the farm, and who was complaining at the failure of his clover seed crop, was surprised when Maurice Thompson, the naturalist, said : "That is why your clover seed fails you. Bumble-bees make your clover seed." It is a fact that a strong nest of bumble-bees in a big clover field is worth $20 to the owner ; for these insects fertilize the blossoms, thereby insuring a heavy crop of seed. In Australia there were no bumble-bees of our kind, and they could not raise clover seed there until they imported some bees.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Vessel for Caking Beeswax.

Query 442.—What is the best vessel to cake wax in when rendering comb? My old oven spoiled my wax, two-thirds of it being quite red when taken out, but turned dark afterward. I shipped a lot of it to a firm, and they said it was badly burned, and paid me for dark wax. One cake was melted in an iron vessel, and it was the reddest and best cake in the lot, having been taken out of the vessel the very morning it was shipped.—A. B., Texas.

A good, bright tin-pan.—H. D. CUTTING.

I use a flaring tin vessel for caking wax in.—G. M. DOOLITTLE.

Four-cornered tin-pans give the best shape for compactness in shipping.—J. P. H. BROWN.

Iron gives wax a dark color. New tin is as good as anything.—W. Z. HUTCHINSON.

I cake wax in tin dishes. Make sure that no iron is exposed to the wax.—JAMES HEDDON.

Flaring, or funnel-shaped tin vessels. Those that we prefer are 12 inches high and 14 inches in diameter at the top.—DADANT & SON.

Any basin or pan serves well. I would advise all to use solar wax-extractors. Then the wax is surely all right.—A. J. COOK.

I suspect your oven is all right, but it must not be allowed to get too hot. Probably any vessel that will hold the hot wax will do, if it is clean.—C. C. MILLER.

I have had so little experience in rendering wax that I am unable to answer, and will leave it to those who have made a business of so doing.—J. E. POND.

I use pressed tin-pans a little wider at the top than at the bottom, so that the cakes of wax will come out easily. Keep them clean, and your wax will not be injured with iron rust. The "red rust" could have been removed before you sold the wax, by melting the wax in a kettle of clean hot water; the "rust" will separate from the wax and go to the bottom, and the wax will "cake" on top of the water. There is nothing equal to a solar wax-separator, in my opinion. There is no method known to me that will preserve the color and quality of the wax like a properly made and properly handled solar wax-separator.—G. W. DEMAREE.

Any clean, bright tin-pan will do if it *flares* at the top. An iron vessel will generally spoil melted wax when put into it.—THE EDITOR.

Bees that Turn Black and Die.

Query 443.—Are bees diseased when they turn black, begin quivering, and go off or die? If so, what ails them, and how do you cure it? The brood is not affected It is the old or middle-aged bees that are troubled.—Tennessee.

I guess they are simply superannuated.—A. J. COOK.

It is constipation, caused by their previous suffering by winter confinement. There is no remedy.—DADANT & SON.

I could tell better if I could see the bees.—H. D. CUTTING.

This is a question to which I would like a satisfactory answer myself.—G. M. DOOLITTLE.

I think it is what some have called the "nameless" bee-disease. Change the queen.—W. Z. HUTCHINSON.

This question is indefinite. If by "turning black" is meant bees that have had their hair gnawed off by other bees, and look glossy black, they are not diseased.—J. P. H. BROWN.

I have had no experience with what they term the "nameless bee-disease." It is quite possible that in all, or nearly all such cases reported, that the bees have obtained poison in some way.—G. L. TINKER.

I do not think what you describe is a "disease" in the common acceptation of the word. It would require more room than is allotted to me here to give my views on the subject. I have never known any perceptible loss on this account, and, therefore, I do not think the case is a serious one.—G. W. DEMAREE.

I should judge that this is the "nameless disease." I never did any thing to cure it, but I think it is said that a change of queen will effect a cure. I never saw any very old bees affected by it, for old bees have ragged wings in the summer, and I never saw any bees with ragged wings affected.—C. C. MILLER.

This must be what is called the "nameless disease." I have often read about it, but I have never seen a case of it. I do not understand quite about the turning black. No one as yet has given a remedy, or in fact any information that would enable myself to figure out the cause. So far as I have read, it affects old and young bees alike.—J. E. POND.

To give the bees a new queen is the best advice we can give.—THE EDITOR.

The "Nameless Bee-Disease."

Query 444.—1. What is the "nameless bee-disease?" What are its symptoms? How do you cure it? 2. Does it affect some races of bees more than others? If so, which race?—J. H., Tenn.

I give it up.—A. J. COOK.

See my answer to Query 443.—G. L. TINKER.

Yes, what is it? I, too, ask what are its symptoms?—J. P. H. BROWN.

Yes; what is it? 2. I guess so.—H. D. CUTTING.

1. For symptoms see the preceding query. 2. I do not know. I have had only one colony so affected, and that was a hybrid colony. Change the queen.—W. Z. HUTCHINSON.

I do not know. A bee-keeping neighbor says these black, shiny bees are only those which are caught and scraped by the other bees. In any event such are becoming more numerous in this locality with each succeeding year.—G. M. DOOLITTLE.

See my answer to Query 443. I have never seen a colony affected by this disease, and I have never been able to obtain any information as to the cause or cure. I think the disease is still nameless, and that nothing positive is known in regard to it.—J. E. POND.

It is a kind of shaking palsy arrangement, and the bees will be seen on the alighting-board somewhat shiny and trembling. I never did anything to cure it, but it seems to be hereditary, and a change of queens is said to put an end to it.—C. C. MILLER.

There is no "nameless bee-disease." I presume you refer to the singular ailment which some seasons appear among the bees, which might be properly called summer dwindling. I believe it is caused by unwholesome "weed honey." A well-informed apiarist of Indiana says the trouble comes on in his apiary when the iron-weed is in full bloom. In the summer of 1884 my bees "dwindled" while they were at work on the iron-weed. The symptoms were much like the descriptions given of the trouble in other States and places. I do not fear that any harm will come from it. 2. It affects all bees alike, so far as I have seen.—G. W. DEMAREE.

The disease is described as causing a shaking, trembling, palsied appearance. No remedy has yet been found. To change the queen will sometimes cause it to pass away. Some think it is found only when the iron-weed is yielding honey, and attribute it to that weed. The losses from this ailment are so slight that it need not cause any uneasiness.—THE EDITOR.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; ⊶ east; ⊷ west; and this ♂ northeast; ⊸ northwest; ⟜ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

The Honey Season of 1887.

O. CLUTE.

Throughout Iowa, and large portions of adjacent States, the drouth since May, 1886, has been the most remarkable in the history of this section. From May to October, 1886, very little rain fell. All the pastures, meadows, roadsides and waste places, where the white clover usually spreads its thick carpet, were parched brown and crisp. During the fall of 1886 we had only light rains. The ground was dry when winter came. During the winter we had some snow, but the amount was small compared with the average winter. Toward spring there were one or two heavy rains, but as they came while the ground was still frozen hard, the water mostly ran into the streams. The spring and early summer of 1887 are now gone, and the rains have still been light. Not a single long rain has soaked the ground since the middle of May, 1886.

The rains of the early spring of 1886 had been plentiful, hence when the drouth began in May the ground was well soaked. The grass crop, and the small grain gave a good yield. The white clover was abundant in this section, and yielded honey well, so that, as I reported in the BEE JOURNAL last fall, we obtained in 1886 about 100 pounds of extracted honey per colony. The corn crop of 1886, and other fall crops were very light. There was almost no yield of fall honey. The long, dry, hot summer dried out much of the white clover. The long, cold winter with little snow exposed the clover to further loss; and the excessively dry spring of 1887 has continued the unfavorable conditions.

There has been but little white clover to be seen. The scattering plants seem to struggle bravely for life, but they can give but few blooms. The season for white clover honey has come and gone, and has yielded no surplus. The strong colonies stored a little honey while the bloom lasted, but not enough to fill the brood-chambers. The weak colonies gathered about enough to live on.

Owing to the exclusive drouth and to warm weather, the linden opened earlier than usual. The trees were well loaded with blossoms; but the blossoms have yielded only a small amount of honey. The strong colonies have stored a little surplus; the weak ones have built up in numbers; all have probably stored enough to winter on, hence we shall be spared the trouble and expense of feeding winter stores. But the surplus honey is very small in amount, and the linden is now about gone.

It is possible that abundant rains within a few days would bring on fall bloom, and give us a fall crop. But this is not probable. We must make up our minds to a very small yield of honey for 1887. Perhaps with some of us there will be no surplus at all.

Fortunately the tendency to swarm has been very slight. No more than 5 per cent. of my bees have swarmed. Hence they are keeping in good condition. They will have abundance of good honey for winter. And not having any honey to look after, we can devote the spare time to other important matters.

It is to be hoped that other sections of the country may report more favorably. Wherever the bee-keepers are getting honey this year it is probable that they will get good prices. For the area is so immense over which there will be scarcely any crop, that it is certain that those who get honey in more favored sections, will have a quick market.

Iowa City,⊶ Iowa, July 1, 1887.

Bee-Keepers' Guide.

The Anti-Bee Craze—An Epidemic.

REV. M. MAHIN, D.D.

It is wonderful to what an extent our humanity is subject to epidemics. We have epidemics of small-pox, measles, whooping-cough, typhoid fever, and Asiatic cholera, not to mention the many other diseases that "flesh is heir to." And it would seem that there are mental states that are very nearly akin to the epidemics that affect the physical man. There are times when suicide seems to become epidemic, and self-hangings, drownings, poisonings, etc., are alarmingly frequent, so that we are almost afraid to trust our friends out of sight, and sometimes we are inclined to feel a little distrust of ourselves. We have had an epidemic of fancy poultry raising, not inaptly denominated "the hen fever," which, in a milder form than the first outbreak more than thirty years ago, has become chronic, and is likely to remain, to the real benefit of the poultry interests of the country.

And, then, we have had an epidemic of "bee fever." The attacks were many and violent. People of all classes, many of them with no experience and no adaptation to the pursuit, rushed into bee-keeping with patent hives, new races of bees, and not a few after losing hundreds of dollars, quit the business in disgust. They did not heed the advice of one of our humorous writers expressed in the following passage, more forcible than elegant: "Don't never undertake to do nothing what aint your forte, lest you find yourself sprawlin in the canawl, figuratively speakin."

But of all the epidemics that have come to my knowledge, there is none quite so laughable, if it were not for the victims, and for the lovers of honey, so serious as that named at the head of this article. The desire to legislate against keeping bees in certain localities except in limited numbers, has become, or is becoming epidemic. It is to be hoped that it will not become chronic. The most amazing thing about it is the ignorance in which it originates. One would think that with our many periodicals devoted to bee-culture, and the many able writers who contribute to the agricultural and other papers, the public mind would be better informed. The claim that bees injure fruit has been demonstrated over and over again to be without foundation. That when forage is scarce they will suck the juices of fruits, and especially of grapes, when the skins have been broken, is quite true. But this is no serious damage, as the broken fruit would soon ferment and spoil. It has been shown by carefully conducted experiments that bees confined where no food is accessible but what is contained in perfectly sound grapes, will starve to death. But suppose they do a little damage, now and then, by appropriating the juices of broken fruits, the fruit-grower's fruit does the bee-keeper's bees quite as much harm as the bee-keeper's bees do the fruit-grower's fruit, and I fail to see why the bee-keeper has not as good a case against the fruit-grower, as the latter has against him. The fact is, society cannot exist without compromises of convenience and interests. If we have the benefits of society, and of the variety of employments and products which society furnishes, we must submit to the incidental inconveniences which naturally grow out of this order of things. I have no right to say to my neighbor that he shall not raise chickens, because the crowing of his partridge cochin rooster disturbs my morning nap, or the cackling of his hens breaks in upon my Sabbath meditations. I have had my sweet-corn eaten up by my neighbor's fowls before an ear of it was mature enough to cook, and my tomatoes destroyed by them almost as fast as they began to color; but what an outburst of ridicule I would have encountered if I had gone to the town council and asked for an ordinance to the effect that no one should keep more than one rooster and two hens within the limits of the corporation.

As to the danger of things to neighbors and passers by, it is so small as to be scarcely worthy of a moment's notice. There is much more danger that my horse may run away and hurt somebody. Yet no one proposes passing an ordinance against keeping horses in the city or village.

I am persuaded that bee-keepers are themselves to blame, in many cases, for the trouble. A neighbor may, without reason, complain of annoyance from our bees; or he may experience some real annoyance; but in either case we must be patient, and answer kindly. "A soft answer turneth away wrath, but grievous words stir up anger." And, then, I have found that a nice dish of honey now and then, with the compliments of the bee-keeper, has a wonderful effect upon a neighbor's idea of the annoyance of an apiary. If we keep the machinery of society well oiled with gentle words and kind deeds, we will have very little trouble.

This anti-bee epidemic will run its course. People will see the folly of making senseless war against one of the established industries of the country, and will wisely conclude to endure a little temporary inconvenience now and then, for the general good, just as they do in regard to many other things.

Bluffton, Ind.

For the American Bee Journal

An Experiment with Bees and Grapes.

J. M. HICKS.

I have made many experiments and tests during the last 15 years, at my home apiary, which consists of about 7½ acres of ground, and a bee-house 100 feet long in which I keep my bees on a platform properly constructed for the stands, so that the bees can at all times in the working season go and return at will. As a means of protection from the forenoon sun, I have arranged grape-vines properly planted 15 feet apart at each front post, so they are thus supported and branch out each way on the front of the bee-house, furnishing a magnificent shade for the bee-hives, as well as raising plenty of the finest of grapes each year.

The grapes are often left remaining on the vines quite late in the fall, and not a grape have I ever discovered as yet being destroyed by the bees. Although some seasons have been very unpropitious for honey, causing me to feed several colonies that were quite short of winter stores, yet not a grape have I ever noticed being punctured or harmed by the bees; and this, notwithstanding many times the vines would hang very near the hives, with plenty of the ripe grapes on them.

This howl against the bees harming ripe grapes, must surely come from those who are not posted, or on account of natural hatred, having concluded to make war on the bees. It seems to me that if any fair-minded and unprejudiced fruit-grower would take the time and pains to investigate the subject as it should be, he could without much difficulty learn the facts as stated above, and not condemn and charge the honey-bee with such false accusations as being guilty of destroying fruits of any kind while growing or ripening on the vines of trees. While, on the other hand, there is so much of proof in favor of the bees, as being of great value in bringing about proper and much-needed fertilization in many of the finest grown fruits of all parts of the United States, as well as in all Europe.

It has been practically demonstrated that bees are of great benefit in bringing about a proper fertilization in many of the fruits and berries grown, which could not be successfully matured without the aid of the honey-bees. Let us hear from the opposing parties, with such facts as are true, and not hear-say evidence, which is of no value in court, and not admissible.

Battle Ground, Ind.

Vermont Baptist.

A Swarm of Be's.

J. B. LEE.

Be quiet, more ready to hear than to speak ;
Be active, true riches unceasingly seek ;
Be patient, the time of Providence endure ;
Be humble, and so shall your path be secure ;
Be hopeful, and never give way to despair ;
Be loving, and show that real heroes you are ;
Be gentle, and prove your wisdom is divine ;
Be merciful, always to pity incline ;
Be gracious, more willing to give than receive ;
Be just, as you would not have others deceive ;
Be upright, and thus your profession adorn ;
Be kind, and treat no fellow creature with scorn ;
Be simple, from sophistry ever abstain ;
Be diligent, if you would substance obtain ;
Be circumspect, think how your conduct is eyed ;
Be meek, and beware of presumption and pride ;
Be lowly in heart for the Savior was so ;
Be long-suffering, like Him when he so-journed below ;
Be not unbelieving, but trust and adore ;
And Heaven BE with you henceforth evermore.

Fairhaven, Vt.

For the American Bee Journal.

The Queen-Excluding Honey-Boards.

W. Z. HUTCHINSON.

When I began producing comb honey the first "snag" I ran against was brood in the sections. So long as the sections were over an old-established brood-nest filled with comb, there was no trouble, but when I began hiving swarms in a contracted brood-nest, and transferring the sections from the old to the new hive, then the "circus" began.

I had no metal queen-excluding honey-boards, and something had to be done at once. I took one of Mr. Heddon's slatted honey-boards, and tacked a strip of tin lengthwise of each slat, letting the tin project beyond the edge of the slat until it lacked 5-32 of an inch of reaching the adjoining slat. This was, I believe, the first combined wood-and-metal queen-excluder ever made. Five years ago I made several of these; they are still in use, and answer every purpose.

The strips of tin were tacked to the under side of the honey-board. It was considerable work to tack on the strips of tin and have the spaces sufficiently exact, so I tried making honey-boards of strips of wood ⅝ of an inch in width, placed 5-32 of an inch apart. These worked well when new, but the bees soon filled the spaces with wax.

Next I tried perforating a very thin board with a saw, cutting a kerf exactly 5-32 of an inch. These work quite well, and I have about fifty of them that have been in use three years. The only objectionable feature is that the openings must be cleaned out each spring. If wood were of sufficient strength so that it might be made as thin as the zinc that is used, it is possible that it might be made to answer the purpose as well. I am not certain that it is the thinness of the metal that induces the bees to refrain from filling the openings with wax; possibly the character of the material has as much to do with this as has its thinness.

During the past two years I have been using the combined wood-and-zinc honey-board, as first invented, I believe, by Dr. Tinker. They are *par excellence;* I ask for nothing better. I have sometimes thought that the perforated wood might be made to answer if the edges of the openings were chamfered so as to make the edges of the wood quite thin. I have not advanced beyond the "thinking stage" in this matter. The only advantage would be the cheapness.

In hiving swarms in hives with a contracted brood-nest, and using frames with starters only—a method which many bee-keepers are now beginning to use—a queen-excluding honey-board is a necessity. Had Mr. Corneil used such a honey-board he would not have been troubled with brood and pollen in the sections. He also used a brood-nest that was *too much* contracted; this, with the absence of a queen-excluder, absolutely forced the queen and pollen into the sections.

I have always advised giving the bees a brood-nest having a capacity of not less than five Langstroth combs. Mr. Corneil used a brood-nest having a capacity of only four combs of 160 square inches each. One of these combs contained a trifle more than a Langstroth frame; about 5 square inches more than a Simplicity-Langstroth frame. I do not wonder that he was troubled by the bees swarming out. I have yet to find one bee-keeper who has followed my method and failed. I have known quite a number who failed when they *thought* they were following my instructions; but, upon questioning them closely I have always found that they had omitted some important factor, or added some disturbing element.

Last winter, at the Michigan State Convention, one gentleman said that he had followed my method, and the bees built all drone-comb; but, upon cross-examination, it was found that he had taken some combs from a full colony and inserted empty frames in their places; something that I have never recommended. It was to get the matter all together, and in such form that I *could not be misunderstood*, that my little book was written; and if Mr. Corneil will closely follow the instructions there given, I feel sure that he will meet with success.

Mr. C. intimates that he lost considerable by following my advice. My advice would be not to strike out too heavily at first in any new direction. In fact, the closing words of my little book are: "And let those who, for the first time, adopt the methods herein advised, do so upon no larger scale than that upon which they can afford to meet failure; and, if failure comes, let them report it, together with the accompanying circumstances, and all will find me ever ready to explain and defend my views, or, if necessary, acknowledge my errors."

Try again, Mr. Corneil, and use a queen-excluding honey-board, and do not contract the brood-nest *quite* so much.

Rogersville, Mich.

Gleanings.

A House for the Apiary.

PROF. A. J. COOK.

I have been giving much thought of late to the plan for an ideal house for the apiary....It seems to me that this is a question of exceeding importance, and I wish to submit my drawings and reasons for this plan for criticisms, that we may secure the very best.

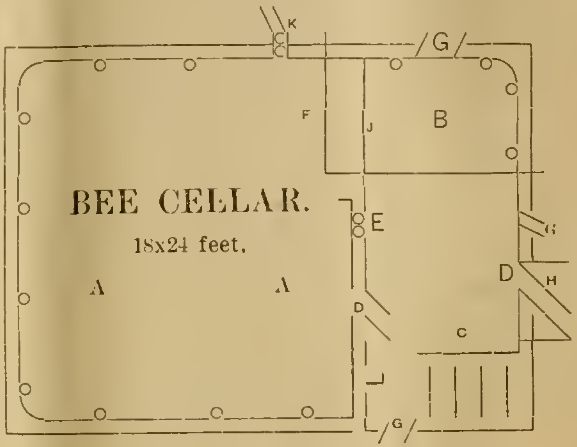
The house is three stories—a cellar 7 ft. high; first floor 8 ft., and chamber 6 ft. at the lowest part. The cellar is for wintering bees; the rooms above are for honey, extracting, and shop; the chamber is for storage. The cellar has two rooms. One, for bees in winter, is 18x24 ft. This is entirely under ground, with a good stone wall, grouted below and plastered above, with a double floor grouted between—to secure against mice and cold alike, and with the partition wall double, with double doors. At the centre of the partition wall a small chimney runs from the bottom of the cellar up to and through the roof. Just within the wall of this room is a small gutter which extends nearly around the room, as seen in the drawing, from one end of a cistern to the underground sub-earth ventilation-pipe which runs 200 ft. or more under ground. Thus this pipe of 4-inch glazed tile serves for sub-earth ventilation, overflow-pipe for a cellar cistern, and it can be made to empty the cistern and cool the bee-cellar at any time, the water passing through the small gutter.

In the other room of the cellar, which is 8x24 ft., there is a cistern 8x14 ft., and 5 ft. high. As will be seen, this extends 2 ft. into the bee-cellar, yet the partition is tight, except a small hole just at the bottom, so we may say we have two cisterns—one a small one in the bee-cellar, the other a large one in the other cellar, though they are connected at the bottom. The other room, which is a sort of vestibule for the bee-cellar, has two windows—one (1x2) by 2 ft., and stairs to the room above, which are covered by double trap-doors. This room is entirely under ground, though the outer double door, which is 4 ft. wide, is, because of a natural slope of the ground, on a level with the outside, or else is inclined so we can easily run a wheelbarrow into the cellar. The windows may receive light by a half-circular excavation, or, if desired, may be above the earth at this southeast corner of the house.

Here, then, we have an arrangement by which we can control the temperature perfectly, from October to May; and from an experience extending now over eight years, I am sure that, with enough good food, bees are entirely safe in such a cellar. By the aid of the cistern there is no occasion to use ice to reduce the temperature in the spring; and we can, by the aid of the sub-earth ventilation and cistern water, keep the temperature just to our liking all through the winter, with almost no trouble and at no expense. This is no theory; it is a demonstrated fact. As the bees can be wheeled into the cellar, their removal to or from the cellar is a very light task.

On the ground floor, which is on a level with the earth outside, there

FIGURE I.



References to Figure I.

A.—Cellar for bees in winter; 7 feet high, grouted on the bottom and plastered with water-lime or ceiled above; size, 18x24 feet.

B.—Cistern, 8x14 feet, outside measure, and 5 feet high.

C.—Stairs to cellar.

D.—Four-foot, double door.

E.—Chimney.

F.—Cistern extends to this line.

G.—Cellar windows, 1x2½ ft., double, outer glass, and inner wood. Both are hinged above so as to open in easily.

H.—Passage-way from cellar, with stone abutments on each side, and level with outside so that a wheelbarrow can be run in and out.

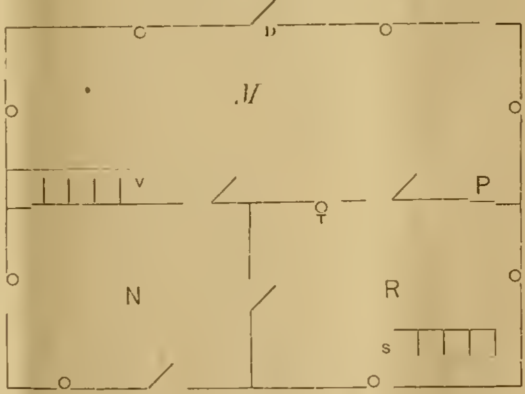
O.—Gutter.

J.—Stone wall 5 ft. high, or all the way up, as may be desired.

K.—Drain of 6-inch tile (Dr. Miller says 10-inch) following the inner lines 200 ft., and all the way below frost or variable-temperature mark.

L.—Double wall lined with paper.

FIGURE II.



References to Figure II.

M.—Shop, 12x30 feet.

N.—Extracting room, 12x15 feet, with hard-wood floor.

O.—Windows, all of which have wire gauze screens outside, and hinged to swing out. Screens on 4 south windows to extend 4 inches above upper jamb, with ½-inch space.

P.—Pump.

R.—Room, 12x15 ft., lathed and plastered, with stove.

S.—Cellar trap-door—double.

T.—Chimney.

V.—Three and one-half feet stairs.

Doors—The double one at the bottom having a sill so low that a wheelbarrow can be run over it; outside door being of gauze-wire.

Posts 14 ft.; studding, to chamber, alternate 12 and 18 inches apart. Side-studding 12 feet long and 1 ft. apart. Floor, double, one foot apart, and with grouting. Cellar and house to be mouse-proof. Ceiling 8 ft.; doors are all 3 feet.

are three rooms. One on the southwest, 12x15 ft., is for extracting and extracted honey. It has a hard-wood floor, wide outer door, and only one thickness of wall, so that in summer it is kept very warm, and so enables us to ripen honey without leaving it in the hive till it is all capped. This is also a demonstrated fact. The joists above are just so wide that they serve as frame supports. The windows are poised with weights, and these and the door have an outer gauze hinged frame. In case of the windows, this extends 3 inches above the outer wall, leaving a half-inch space, so that bees can easily pass out, while they do not pass in.

A second room on the southeast is also the same size, but is double walled, lath and plastered. It contains a stove, but has no outer door. It is for comb honey, for an office, and has trap-doors to cellar stairs. I find that some are not in favor of this room, but I think it very desirable.

The entire north side of the building is for a shop. This is 12x30 ft. It has a pump from the cistern below, and stairs to the chamber above. It has an outside door, four windows, and a door into each of the other rooms. There will also be a stove in this room. In winter then, when we have a fire in either room, the chimney will be heated, and the air drawn from the bee-cellar. The wind, too, passing over the chimney, will suck the air from the cellar. In both cases the air is supplied through the long sub-earth pipe, and so is tempered by the temperature of the earth, and is kept sweet and pure. This is both theory and demonstrated fact. This room is large enough so that a small engine and some machinery can be introduced if desired. I find that this house, large enough for a large apiary, can be built for $500; and for safety and convenience I believe it fills the bill. I cannot agree with Mr. Heddon, that we had better have double-walled houses above the ground. I think the cellar far better and more convenient. I shall be very glad to have this plan criticised, for, as stated before, this is a matter of great importance to all bee-keepers in the Northern States and in Canada.

Agricultural College, ♀ Mich.

[As Prof. Cook has sent the above to the Bee Journal, and asks for a thorough discussion and criticism, we think the following answers to a query in the *Canadian Bee Journal* will be interesting and to the point. The inquiry was for building a bee-house for 60 colonies, and these are the replies there given.—Ed.]

Bee-houses above ground in this locality are very unsatisfactory, therefore I have given little attention to them, and do not feel competent to advise in the matter. In no locality can they equal an underground winter repository, and were I to build anything for the safe wintering of bees, it would be wholly or partly underground. If the latter, it is easily covered with several feet of dirt, which makes it equal to being wholly underground.—G. M. Doolittle.

I winter my bees on the summer stands, and in an ordinary house-cellar. If I were going to build a place to winter bees, all would depend upon location. I should prefer to build into a side hill. I would build of stone, if plenty, or of brick. I should want the floor constructed of cement, and should want it to have double doors. To ventilate, I would use a box ventilator about 8 feet inside, reaching to and resting on the floor with openings cut in the sides close to the bottom; also openings near the top of the room constructed so they could be closed. I find it best to ventilate from the bottom; if it gets too warm then open the top holes. If the repository should be built above ground, I would arrange it so that it could be heated. If you can afford to build a repository, "build it well;" do not stop for a few dollars expense. —H. D. Cutting.

I winter all my bees in cellars under buildings. One of my apiaries is wintered in a cellar under a bee-house, built especially for the business. The bee-house is built on a dry knoll and is about 14x20 feet, with a cellar full size of the building, and 6½ feet deep, and excavated so as to be below the surface. The walls are of stone, 2 inches thick, well mortared; then it is lined inside with brick standing on edge. The joists overhead are 8 inches wide, and are sealed on the under side with good lumber, then filled in with dry sawdust, and floored with matched lumber. It has a hatchway in one end with double doors; with a trap-door to lay snugly down over the hatchway to keep out snow and rain. It is ventilated by an underground drain 10 inches square, about 100 feet long. The drain has a small slide door where it enters the cellar, to open or close as required. In the opposite corner of the cellar from where the drain enters, a stove-pipe enters through the floor connected with the stove in the honey-house above.—C. M. Post.

My bee-repository for wintering is under the same roof as the dwelling, occupying one-half of the first flat of the same. The outer walls are double, being 23 inches apart, and filled between with dry sawdust. The partition between the bee-room and dwelling, and also ceiling of the former, are filled with only 15 inches of sawdust. Like Noah's Ark, it contains but one window and one door; the former is packed with about 10 inches of fine sawdust before the bees are put into winter quarters, and the latter treated in a like manner afterwards. The inside measurement of the room is 14x20 by 9 feet high, and is capable of wintering 150 colonies; being 14 feet wide allows four rows of shelving and two passes, the shelves are three deep, wide enough to let the hives stand nicely (15 inches), the lower one 18 inches off the floor, and the others spaced 2 feet. The floor is about 2 feet above the surface of the ground, and underneath is a stone cellar 6 feet 6 inches high, into which a large sub-earth ventilator is brought; the same lies 4 feet under the surface of the ground, and is something like 160 feet long. At the outer end there is a box arranged to allow the air to enter the pipe and yet prevent snow from entering and blocking it. From the cellar there are ventilators into the bee-room in each corner, and also a winter entrance, thereby enabling me to visit the bees without in the least changing the atmosphere. From the floor of the cellar there is a 2½-inch pipe connected to the chimney (which reaches to the cellar) to draw off the carbonic acid gas; the upper ventilators of the bee-room also join the chimneys.—D. Chalmers.

My bee-cellar is under my dwelling house, where I winter my bees with an average loss of only 3 to 4 per cent. The cellar is an excellent one, well drained and fairly dry, and the bee-department is ventilated in the following manner: For the ingress of air I use the cellar drain, which runs below the frost, some 200 feet from the house gradually thereafter coming to the surface. By means of a pipe at the outer end reaching always above the surface of the snow, I keep a free communication with the external air, the temperature of which is considerably raised before it reaches the bees, by passing about 250 feet under the ground. For the egress of the foul air and gasses I have a pipe 6 inches in diameter, which starts within 4 or 5 inches of the cellar floor and runs up, connecting with the kitchen stove above. I have also two other pipes of the same diameter running out of the bee-cellar and reaching to the external air. These are kept stuffed during the coldest of the weather with small circular bags filled in with dry sawdust, and these can be easily removed or partially removed, whenever it becomes necessary, either to lower the temperature of the bee-cellar or purify the air. With these facilities in connection with a stove standing outside of the bee-department, which can be fired up whenever necessary, the temperature in the bee-repository can be kept as desired without much trouble. If you will just keep in mind a few first principles or essential conditions of successful wintering, you can construct your house in conformity therewith, and you will then require but little advice from anybody. In the first place, you want a house for bees frost-proof, and dry if possible. In the second place, you want it well ventilated, and to secure this the sub-earth pipe is indispensable for the introduction of fresh air from without. Build the house, if possible, on a site slightly elevated, and put your subterranean pipe deep below the frost, and carry it off 300 feet or more, if possible, before you connect with the surface. This will be a little expensive, but a few colonies saved from winter losses would soon cover it. As to the upward ventilation, that, of course, can be easily accomplished. For 60 colonies, 12 to 15 feet square, and 7 feet high, inside measure, would be large enough. Were I building a bee-cellar

I think I should construct it of wood above ground, and fill it in on all sides and above and below with about 2½ feet in thickness of dry sawdust, the floor above ground, and double or treble doors, of course.—ALLEN PRINGLE.

I will give a description of my own, which I think is as good for the purpose as any in Ontario. The building is 12x25 feet, two story. To begin at the beginning, I excavated 4 feet deep. I then built a stone foundation 2 feet thick, and a little above the surface of the ground. Upon this foundation I put up two balloon frames of 2x4 inch scantling, one frame on the inside of the foundation wall, and the other on the outside. I sheeted up the inner sides of these two frames with inch boards. I had now a frame-work standing on the stane wall—or rather two frames, that on the outer margin 2x14 inch scantling, 16 inches apart and sheeted up inside. The inner frame-work was the same, but sheeted up on the reverse side. I had thus a vacant space over the centre of the stone wall of some 14 inches walled up on either side with inch boards; this space I filled up with sawdust, and lathed and plastered inside and outside. Beginning at the outside: I have first a coat of lath and plaster, then 4 inches of dead air space, then an inch board, then 14 inches of sawdust, then another inch board, then a dead air space of 4 inches, and the inner coat of lath and plaster. The ceiling is 10 feet high, and made as follows: I laid on joists 2x8 inches, lathed and plastered below and floored with rough inch boards on top; immediately over the first joists and on this rough floor I laid another set of joists, the same in size, and filled the spaces between flush to the top of the other set of joists with sawdust, and then laid a tongued and grooved floor over all. The ceiling, beginning from above, then consists of first, the floor, then 8 inches of sawdust, then a rough floor. then 8 inches of dead air space, and finally the coating of lath and plaster, which forms the ceiling of the bee-house proper. I divided the upper story into two rooms, lathed and plastered also. The inner wall on the foundation, however, only runs to the top of the first floor, so that the walls of the upstairs rooms are simply a 2x4 inch scantling, frame plastered inside and outside. These upstairs rooms afford dry, warm storage for comb honey. I laid a Portland cement floor on the bee-house below, and cemented the stone wall inside, which effectually excludes any soakage from without. I have an inner and an outer door on the bee-house, and between these I put a 4-inch thick straw mat, made to fit the doorway. This mat, of course, I put away in the summer and replace it with a wire screen door, for I do all my extracting in the bee-house—and a delightfully cool spot it is in the hot weather which prevails then. Two sub-earth ventilators—8 inch tube—and led up from a ravine to the rear of the building, give ample bottom ventilation. The upper ventilation consists of two tubes of stove-piping, running through the ceiling and roof. Through a hole in the upper floor I drop a thermometer into the bee-house and keep it suspended midway between the ceiling and floor. To find the temperature below, all I have to do is to go upstairs and draw up the thermometer. In each of these ventilating tubes I have a common stove-pipe damper, and by simply opening or closing the damper I can regulate the temperature below at the same time I am examining the thermometer. This bee-house being plastered inside and overhead, a coat of whitewash in the spring keeps it sweet and clean. I have used this house for wintering bees for some six years, and I never lost a colony in it except from starvation or queenlessness, and I do not think the bees consume more than 6 pounds of honey to each colony in five months' confinement. It is so nearly perfect that, if building again, I would make no change except to substitute concrete for sawdust, which would make it last many years longer. This house will accommodate 200 hives. There is a chimney starting at the upper floor, and into this I ran one of the ventilators the first year I used it, but I found that the vapor from below condensed in the lateral pipes and filled them with ice. Afterwards I used upright tubes, and have had no trouble with them since. From this description some may think my house too costly. All my outlay was the cost of the material, for I drove every nail and put on every trowelful of plaster there is in the building with my own hands.—R. MCKNIGHT.

If we were building a bee-house we would prefer to have a good cellar under it frost-proof, and have the walls above the cellar at least 20 inches thick. This gives an opportunity of wintering either in the cellar or above, or if desired in both. A cellar 12 feet square inside would hold 100 colonies, or if you use both cellar and the second story it would hold 200. We find the second story very valuable for extracting purposes, work-shop, store-room for honey, etc. In fact without some such place for storage, with a large apiary, it would be very difficult to manage. But if you have all the storage you require, and every facility for carrying on your business so that nothing is required excepting simply a winter repository, it may be made all above ground by putting up a wall of 2x4 scantling, and filling the 20-inch space between the walls with dry sawdust or some equally good packing. A very cheap arrangement might be built under ground if the drainage was good, and the soil sandy so that no water would trouble. This might be called a cave by some, by merely building a stone wall around it and roofing it over with timber and earth sufficiently deep to prevent the cold from getting in; or it might have a packing of 18 inches of sawdust, and at least 2 feet of chaff, but 30 inches would be much better than roofing over.—EDITOR OF CANADIAN BEE JOURNAL.

For the American Bee Journal.

Uniting Weak Colonies.

J. E. POND.

I have tested this matter quite thoroughly, and would say that two weak colonies united in the spring will, in my experience, live no longer than either would have lived alone. The queen and colony seem to need young bees in the hive to cause brood-rearing to go rapidly forward, for without them there seems to be a lack in that respect. For this reason (which I believe correct) I always draw a frame of brood from a strong colony and give to the weak one, preferring, if I can find such, a frame from which the bees are just emerging.

I have built up in this way to full strength by July 1, quite a number of colonies that did not have bees enough on the first of March, to cover one-third of both sides of a Langstroth frame; and I have united colonies, both much stronger, and having a good queen, that "petered out" completely in three or four weeks. In case, however, I had no colony strong enough to spare brood, I should unite to save a queen.

Foxboro, Mass.

For the American Bee Journal.

The Season in Northern Ohio.

T. F. KINSEL.

Up to June 20 there was no surplus honey. It was too cold in fruit bloom for bees to fly, and too wet during white clover bloom for any nectar to be secreted. The red clover was very sweet—but is there such a bee as a "red clover queen?" If a drouth, preceding clover bloom, shortens the bloom, bees seem to work on red clover. I have seen black bees and yellow-banded ones on red clover, but ordinarily the bees are not found on red clover.

Only one-third of my bees have swarmed, and they, except four, were made swarms according to Mr. Simmins' method. On July 1 I had a natural swarm, and desired to test Mr. Hutchinson's method. They were hived on four Langstroth-Simplicity frames, with 1-inch starters, and closed up with a division-board on each side; a zinc queen-excluder laid on top, and an extracting super put on top, immediately filled with drawn foundation. It was a large swarm, and was forced "up stairs" for want of room. In the evening of July 2 I examined them, and found 10 pounds of honey in the super.

Bees now are working on basswood, and fly and work from sunup till sundown. I think that Mr. Demaree told the exact truth when saying: "If honey—nectar—was plentiful, it would be difficult to keep bees out of the sections." Bees, like men, cannot make something out of nothing.

Mr. Doolittle once said that he preferred 25 colonies ready for the honey harvest at any time, to 200 colonies kept in the ordinary way. It seems to be the truth, and if he has had colonies gather 22 pounds of honey each in one day from basswood, as he says, what use is there to fuss with so many bees for so little honey? It would be better to keep 25 colonies ready for the honey harvest when it comes, though they had to be fed some. All men cannot do as Messrs. Doolittle, Demaree, Heddon and others do; yet any man or woman with some energy can keep 25 colonies strong at all times, better than to waste time on more colonies as ordinarily kept.

We are having a "honey shower," but it is very dry here now. We had a sprinkle last night.

Shiloh,♂ O., July 4, 1887.

Hiving Bees—A Laughable Incident.

The following graphic description of how Judge Odom's man Roberts hived, or, rather, did not hive, a swarm of bees, is from the Albany, Ga., *News*. It is a good story, the perusal of which our many readers will enjoy. Here it is:

There was a lively bee-hiving out at Judge Odom's "oakey woods" place the other day—the whole affair being fully up to reputation as regards the tragic and ludicrous. Judge Odom had charged Mr. Roberts, the overseer, to watch the bees and let no swarms get away. Swarming season approached, and Roberts made ready for his apiarian harvest by preparing gums, and conveniently placing tin pans, bells, horse-shoes, and other instruments of music likely to compose and detain a swarm of bees, on taking French leave.

He did not have long to wait. The other morning the hottest kind of a swarm darkened the air, and Roberts put his orchestra in motion with a vigor that would cause any musically-educated bee to pause, reflect, and turn back. They did pause, and with one accord pitched upon a tree in the yard, where they formed themselves into a funnel-shaped mass.

Roberts then played upon them with a huge syringe from a bucket of water, and having effectually, as he supposed, put out the incipient flame that lurks in their tails, prepared to gather them into his garner. The bunch of bees were some 10 or 12 feet from the ground, and the object was to land them safely within the bee-gum.

A serious difficulty here met Mr. Roberts, to-wit: how to bring the gum in proximity with the bees and retain it there. The gods of genius were propitious; necessity, prolific old mother of invention, brought forth a son in the person of "Blind Phil," a colored man on the place, who is nearly or quite blind.

"Phil, come here," said Mr. Roberts, "I want you to hold this bee-gum up under that bunch of bees, while I climb the tree and sweep them in." And without ceremony or unnecessary delay, he seized Phil, and placed him directly under the bees, put the bee-gum on top of his head, and directed him to stand fast.

Broom in hand, Mr. Roberts then ran up the tree with the nimbleness of a cat or squirrel, and, crawling out, hung himself on a limb, and cautiously began to sweep them off, letting them fall in lumps into the open box on the negro's head below. Mr. Roberts congratulated himself on the success of his scheme.

Sometimes a wad of bees would miss the hole and strike Phil on the shoulder, which made him restless. "Stand firm, Phil," said a voice from above, "and they will not sting you. If a bee finds out that you are afraid of him, he will sting you certain. Just let him know you are not afraid, and there is no danger," remarked Mr. Roberts by way of encouragement.

"Ouch! golly! I'm stung for shuah! Whew! Mars Roberts, I'm got to drap dis box!"

"Stand still, you chicken fool you! I'll soon have them all in. Who cares for a bee?" Just then an old-liner marched down Phil's back, under his shirt, and Phil became still more uneasy, but Mr. Roberts spoke soothing words from above.

Suddenly, however, the bees seemed to realize who it was disturbing them, and about forty "business fellows" popped Mr. Roberts simultaneously, and he dropped his broom, lost his hold, and came down with a crash upon the negro and box.

With a whoop and a wild screech, Phil got upon his feet and lit out, followed by a crowd of bees. He forgot his blindness, and went he knew not whither, striking the garden palings broadside, and leveling three panels with the ground. He never stopped, but continued to charge around the inclosure until the vegetables were all destroyed.

In the meantime, Mr. Roberts was fully employed. In fact, he was "very busy." Around the house and through it; then under it; out to the gate, through the house-lot, and "over the hills and far away."

Neither were the bees idle, but diligently "improved each shining hour," flitting from flower to flower (Roberts and Phil were the blossoms), culling all the sweets and raising merry "Hail Columbia."

The swelling has all gone down now, and if anybody sees a stray swarm of bees in the neighborhood they need not hesitate to hive them, as Mr. Roberts and Phil will lay no claim on them.

Prairie Farmer.

Feeding Bees in the Spring.

MRS. L. HARRISON.

Some time ago I examined a colony belonging to a friend in an adjoining town, and if I had not done so they would soon have starved. They had consumed all their stores in rearing brood, and had made no provision for a rainy day. Many persons suppose that because there are flowers in abundance, there is honey; but this is a mistaken idea, as the electric conditions must be just right or the nectar will not be secreted. Good corn-growing weather is good honey weather; warm nights, followed by soft, balmy days.

When the weather is warm enough for bees to fly, and they are rearing brood rapidly, it is not so important what kind of sugar the syrup is made of, as it is for winter stores. Brown or maple sugar will do very well. Care should be taken that robbing is not induced, and it is best fed in the upper story where no bee from the outside can gain access to it. Where the bees are covered with duck, muslin, or a quilt, one corner can be turned back, allowing the bees to come up. Although they are very investigating little bodies, they do not always find the food immediately; but if a little is poured upon them, and a small stream of it leading to the receptacle, they will soon be busily engaged in carrying it down into their combs.

Peoria,⊙ Ills.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—We quote: Extracted, 5@7c., according to quality and package. New honey in 1-lb. sections was sold for 15c. per lb. Only 2-lb. sections of honey are now on the market.

BEESWAX.—22c. R. A. BURNETT.
July 7. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5 cts.; light amber, 4@4¾c. Comb, extra white, 12@14c.; amber, 7@10c. Market firm.

BEESWAX.—18@20c.
July 2. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c. Strained, in barrels, 3½@4¼c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@6c. Market dull.

BEESWAX.—Steady at 20½c. for prime.
May 20. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber 3¾@4½c. Market quiet.

BEESWAX.—18@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; in white in kegs and barrels, 6@6½c.; dark, 4 to 4½c.; amber, in barrels, 4½@5c. Demand limited and supply small.

BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way. Market almost bare of comb and extracted honey.

Jun. 16. CLEMONS, CLOON & CO., cor 4th & Walnut

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

Local Convention Directory.

1887. *Time and place of Meeting.*

July 16.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Filling Brood-Nests with Honey.—Abe Hoke, Union City,○→ Ind., on June 28, 1887, says:

The prospect for a large crop of honey looks rather slim at this time, but I think it is improving. Swarming is 20 to 25 days later than last year. The bees have been filling the brood-nest with stores for the last two weeks, so if we get little or no surplus we will not have to feed our bees. I am just as happy looking after my bees as though they were storing honey.

Apple-Blossom Honey, etc.—Chas. D. Barber, Stockton,♀ N. Y., on July 2, 1887, says:

I began with one colony in the spring, and in two weeks it stored at least 75 pounds of apple-blossom honey. We have four large orchards for my bees to work on, and I consider the honey as good as that from white clover. My bees are Italians, and they swarmed three times before June 21, each swarm being a large one. The first swarm has its hive almost full of honey now, and basswood is not yet in bloom.

Little Yield from White Clover.—J. F. Hays, Macomb,♀ Ills., on June 30, 1887, says:

The honey crop is comparatively a failure here, and the bee-keepers are "blue." We had an abundance of white clover, but it yielded very little honey. I got only 10 swarms from 100 colonies. The weather continues very dry.

Elongated Cells.—William L. Job, Fillmore,←○ Ind., on June 26, 1887, writes:

I have just read "Symptoms of Foul Brood," on page 393, with much interest. If Mr. Hoyle is correct, that elongated cells is a symptom of foul brood, I fear it is in this locality. After reading his article, I remembered noting one a few days ago in looking for a frame of brood to give to a weak colony. I have just been out and examined the colony. It has been somewhat weak this spring, and the bees seem to have no energy. They have plenty of sealed honey carried over winter, and at present have plenty of pollen and considerable brood, yet one-half of the brood is in elongated cells, some of them not capped over, while two-thirds probably are capped. I put a frame of this brood in the hive of another colony a week or more ago, and now I find no raised cells in that frame of brood. I did not look for the queen, but saw plenty of eggs and brood in different stages. Bees are storing no surplus, as white clover is dried up. Our last chance is linden, and it is just beginning to bloom.

Width of Hives—Division-Boards.—A beginner in Sunapee,♀ N. H., asks the following questions:

1. I bought some hives last winter just 13½ inches wide, which the dealer said were just right for nine frames. Was he correct? If not, what is just the right width for nine frames? 2. Should there be a bee-space below the division-boards, or should they fit close to the bottom of the hive?

[1. For hives to contain nine frames we make them 13 inches in width.

2. Division-boards should fit close to the bottom of the hive.—Ed.]

Virginia Water-Leaf, etc.—Abel Gresh, Weedville,♂ Pa., on June 28, 1887, says:

I send a sample of a plant found wild in the woods here, which appears to be very attractive to bees. Please give the name, and state its probable value as bee-forage. Bees are about done swarming, and have some surplus, but if rain does not come soon the honey crop will be cut short.

[This is *Hydrophyllum Virginicum*, belonging to the Water-leaf family. The common name is the "Virginia water-leaf." It is a shade-loving plant, or rather does the best in the woods, and, like the other members of the family, is an excellent honey-plant, both for the quality and the quantity of nectar produced. It is a native, and is very widely distributed throughout the country, though usually not in great abundance.—T. J. Burrill.]

Honey Crop a Failure.—H. C. Gifford, Morris,♂ Ills., on June 29, 1887, writes:

I work for comb honey, and never take any out of the brood-chamber. My 24 colonies came out strong in the spring, with lots of honey, and to-day I do not think there is as much honey in the hives by 400 or 500 pounds as there was when I unpacked them. I have had 7 swarms, which I hived, and how they live I cannot tell, but I do not believe that one of them would have staid in the hive if I had not filled it half full of foundation to encourage them. We had no white clover to speak of, and the bees are quiet, except a little while in the morning and evening. I am on the Illinois river, and there is plenty of timber here, but until the last few days it seemed there was nothing for them to do. They are working now some on the linden. I think the crop in this section will be a failure. I am the only one that I know of here that has had a swarm. Last year, from 12 colonies, spring count, I got 1,200 pounds of honey, and I did not use foundation. I put on the sections the first thing in the spring, and all the best of them have done is to draw out the comb. Some have not touched it yet.

Few Swarms and Little Honey.—Oliver Foster, Mt. Vernon,○→Iowa, on July 1, 1887, says:

I can report from this section few swarms and but very little honey this season. We had a good rain to-day, but it is too late to do much good to the bees.

Lots of Bees, but Little Bloom.—W. Mason, Fillmore,←○ Ind., on June 29, 1887, writes:

Through this part of the State everything is drying up badly. Bees are storing but little surplus honey, the white clover bloom being almost a failure. But very few swarms have issued so far. The hives are full of bees, and would do good work if there was plenty of bloom. The basswood has just commenced to bloom, and we are hoping that a good yield from it, with what little is stored from white clover, we may have a small crop at least. Unless good fall bloom should follow, we will be able to report a failure such as we have not met with in ten years; which will be quite a discouragement to beginners.

White Clover and Drouth.—Rev. L. Lobeck, Key,♂ Iowa, on June 27, 1887, says:

Bees are doing poorly. From 9 colonies of hybrids, which are in a very good condition, and from which I allowed only two to cast a swarm, I have taken but 30 pounds of comb honey. I do not think that they will average 15 pounds of surplus each this year. White clover is nearly killed by the drouth. Last year my colonies averaged 85 pounds of comb honey.

Report—Shelled Honey.—James Winters, Kenton,←○ Ohio, on July 5, 1887, writes:

Bees in this locality are not doing much so far this season. They came through the winter in good condition, with very little loss, but they have not swarmed much, nor gathered much honey. I have had only one swarm from 36 colonies, and there is very little honey in the surplus boxes. The white clover did not yield much honey; what surplus they have gathered came mostly from the linden, and that is nearly exhausted. They may get something from the second crop of clover and the fall flowers, but the prospect is not flattering for a good yield of honey this season. I notice in the BEE JOURNAL that a new name for extracted honey is wanted. Call it "shelled honey;" then when our customers want to know what kind of honey that is, we can explain. Ignorance in regard to honey-production prevails to such an extent amongst the consumers, that it takes an explanation to give them a correct idea of the matter. Any thing to provoke inquiry will be a help to get rid of the prejudice and ignorance that surrounds our business.

Prepaying Charges on Bees, etc.—C. Weeks, Clifton,♀ Tenn., on June 28, 1887, writes:

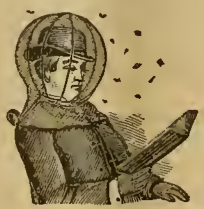
For the last three years I have been disposing of my surplus stock of bees, but now a new obstacle comes up. Express companies refuse to take bees unless the charges are prepaid. The question is, how can we advertise bees in hives and prepay express charges, not knowing what distance they will have to be sent? I sent a colony to St. Louis by boat to be expressed to Washington Territory. The agent refused them unless the freight charges ($30) was prepaid. Of course I could but order the bees brought back. The man who ordered them wrote me that he would have been willing to have paid $8 expressage on them. There is less surplus honey here this year than for the past ten years. In fact, this is not a favorable locality for surplus honey, and I expect to be forced to destroy a portion of my bees to reduce my stock. I allow but little increase of colonies.

[" There's the rub." We see no way to avoid the trouble. The Express Company could not be blamed. Bees are perishable property, and if they had carried them through to Washington Territory, the last company which handled them would have had a loss of $20 or more, for it must advance the charges of the preceding handlers. As it was, you are the sufferer. But there are two sides to this as well as nearly all of such questions.—ED.]

Swellings from Bee-Stings.—Warren Pullen, Estherville,⟜ Iowa, gives his experience with bee-stings as follows:

This spring I had 4 colonies of bees, and I have increased them to 10, and they are still increasing. But could I change swelled head and bloated eyes into hives, I should not have to make any for ten years. Can you inform me as to anything that will prevent the swelling from bee-stings? I do not mind the sting, but I swell like a barrel, and cannot see for three days. I break out all over my body, from the top of my head to the very bottoms of my feet. I need two "scratching machines," or the itching would craze me. You will say, get a bee-hat; I have a good one, but if my nose gets too close they will strike through, and are sure to hit me. They have stung me twice through kid gloves, so I do not know what to do. If you can advise me as to any way so I and the bees can stay together and be friendly, I shall thank you.

[A good bee-veil would not permit the bees to get at your nose. One like the illustration is an excellent protection. Kid gloves are not thick enough. You need rubber gloves. Carbonate of soda will generally antidote the bee-poison; hartshorn and salaratus water are also used to advantage. Pull out the stings and apply a strong solution of carbonate of soda to the wound before it closes up by swelling. To dissolve one-half tea-spoonful of the soda in a little water and drink it will often prevent swelling.



BEE-VEIL.

If this does not answer the purpose, dissolve a table-spoonful of salt in a half-goblet of vinegar, and make it tepid. Then apply it to the wound with a rag. An onion cut in two and gently rubbed on the wound will often prevent swelling. Crushed tomato leaves are used with good results for the same.

The reason why one remedy will not answer for all, is because of the ever-varying state of the human system, both as the result of internal and external causes.—ED.]

Sweet Clover on the Roadside.—Jno. A. Osborne, Rantoul,♂ Ills., on July 1, 1887, writes:

I have been growing sweet clover along the road near my farm for five or six years, and I find it a great help to the bees in July and August, and I have never had any trouble about it until now. I have been mowing a swath along each side every year until now, and I would have mown it this year but the commissioner of highways hired a man to cut it all down a few days ago. Now I would like to know if you think I have a right to grow sweet clover along the road near my own farm, so long as it does not interfere with travel. It seems to me that I have a right to the grass or whatever grows on my side of the road. The party on the opposite side of the road from my farm has a strip of ground 14 feet wide on what is supposed to be the right-of-way, planted in corn and oats, and I (nor any one else) have not complained of him, as the road is still wide enough. Have I any chance to get damage of the parties who cut the clover, or will I have to give up growing clover on the roadside?

[If the "commissioner of highways" hired a man to cut the weeds, etc., along the highways, you could have no case against the man who cut it "by authority." If it was a malicious act on the part of the commissioner, you might have a case, but we fear that might be difficult to prove. Your "rights" on the highway may not include using it for "pasturage" or for "raising garden truck" there. We do not know how the law reads on that subject, and prefer to leave that matter to the attorneys.—ED.]

Bees doing Well.—Samuel Jarvis, Fair Grove,♂ Mich., on July 2, 1887, writes:

I have visited a half dozen apiaries, and I believe that bees are doing very well in this locality, and especially in increase. Four old colonies in my father's apiary sent out 12 swarms, beginning on June 3. We have some linden, but white clover is the main bee-forage. Red raspberry bloom is gone.

Worked Well on Alsike.—B. F. Conely, Brighton,⊸ Mich., on July 1, 1887, says:

I had 33 colonies, lost 3 in winter, and started the season with the remainder. My bees are doing very well, considering that there was no white clover honey. Fifteen colonies have cast swarms, but I will not let them swarm any more. I had four acres of Alsike clover, and the bees work well on it. I shall get about one ton of honey.

Profusion of Basswood Bloom, etc.—S. J. Youngman, Cato,⊙ Mich., on July 4, 1887, says:

There was only one rain in June, and the consequence is a profusion of white clover bloom, but no nectar. Alsike proved to be, as usual, all that could be expected, growing in some places, where mixed with timothy and the large clovers, 2½ feet in length. My colonies have gathered from 25 to 30 pounds each of choice, thick honey. Basswood bloom opened on June 30—the earliest known to bee-keepers here; there is a great profusion of the flowers, and a great yield of honey is expected, as the colonies are strong in numbers. It rained on July 2, 3, and 4, and other honey-plants will thrive.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Do you Want a Farm Account Book? We have a few left, and make you a *very tempting offer*. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is $3. We will club it and the Weekly BEE JOURNAL for a year and give you both for $2. If you want it sent by mail, add 20 cents for postage.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructable. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for $1.50.

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Where to Keep Honey is the title of Leaflet No. 3. For prices see the second page of this paper. If you wish to see a sample of it before purchasing, send for it.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides his own, with $3.00, for one year, we will present a copy of this valuable book.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 **cents** per lb. Orders solicited.

Bee-Keepers, write to the Hub Mfg. Co., New Hampton, Iowa, and learn how to free your honey-houses from Bees, Flies, etc., for 8⅓ cents per window. "A patent attachment for any window." 26A2t

Advertisements.

TESTED QUEENS, $1.—Bees, Supplies, etc. See Foster's adv't. on page 432.
28Atf

BY Return Mail.—Italian Queens, Tested, $1; Untested, 60c. Bees per lb., 50c.
26Atf GEO. STUCKMAN, Nappanee, Ind.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

10 SIMPLICITY-frame hive of Italian Bees, $5.00; 2-frame Nucleus, $1.50; 3-frame Nucleus $2.00. Tested Italian Queen, $1.25; one Untested (young laying) Italian Queen, 75 cts; two or more, 70 cts. each. BEES by the lb., same price as untested Queens. Can send by return Mail or Express.
Address, OTTO KLEINOW.
28A1t (opp. Ft. Wayne Gate), DETROIT, MICH.

NUCLEI! NUCLEI!

I **HAVE** 200, and they must go, so the price will be only $2.25 for 2 Langstroth Frames of Brood; plenty of bees and a beautiful Tested Italian Queen. Untested Queens, 25 cents less.
JOHN A. BUCHANAN,
HOLLIDAY'S COVE, Hancock Co., W. VA.

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Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

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More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

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Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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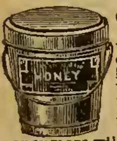
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

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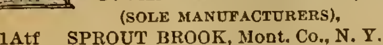
UNTESTED **Italian Queens.**—Single Queen, 65 cts.; 5 for $3.00; 12 for $6.50. **BEES** per lb., same price as Queens.
26Atf **I. R. GOOD,** Nappanee, Ind.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.



PATENTED, JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

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W. Z. HUTCHINSON,

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HAS published a neat little book of 45 pages, entitled: **THE PRODUCTION OF COMB HONEY.** In which, from the time of building up colonies in the spring, to the removal of the honey from the hives, to the problem of securing the most first-class honey with the least expenditure of capital and labor, is clearly explained; the author carefully outlining the system that he believes to be best, and giving reasons for his belief. ☞ Price of the Book, **25 cents.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, $1.00 each, by **return mail.**
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"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis

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WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

BY RETURN MAIL!

SIX Warranted Italian Queens...............	$5 00
Fourteen Warranted Italian Queens..........	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

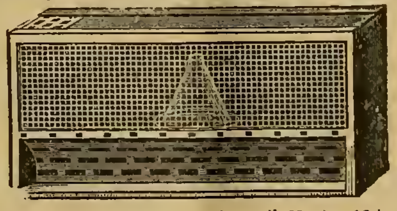
Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity. All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

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THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
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HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
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STILL LOWER.

TESTED Italian Queens............	$1 00
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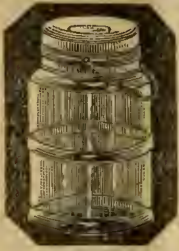
28A3t CLIFTON, TENN.

GLASS PAILS



FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	**$1.60**
" 2 pounds " "	.....	**2.00**
" 3 " " "	.....	**2.50**

THOMAS G. NEWMAN & SON,
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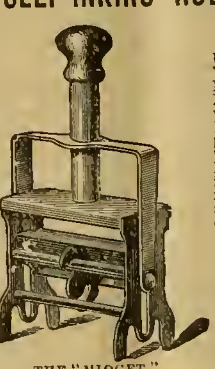

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GEO. T. HAMMOND,
Brockport,
Monroe Co., New York
26Etf

BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives; for sale CHEAP. Address, **Z. A. CLARK,**
8Etf ARKADELPHIA, ARK.

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J. H. Martin, Hartford, N.Y.
6W(3tm)40t

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. July 20, 1887. No. 29.

Hot Weather all over the Northwest and some parts of the Southwest has been continuous for the past 25 days. We have had frequent showers, but the extreme heat has absorbed nearly all the moisture from the thirsty land. This has been a year of severe and long-continued drouth.

◆

The Tri-State Fair will be held at Toledo, O., on Sept. 5 to 10, 1887. Dr. A. B. Mason, of Auburndale, O., is Superintendent of the Apiary Department. Entries close Sept. 5. The premiums amount to over $100 in cash, besides diplomas.

◆

Don't do it!—Notwithstanding our many cautions, some persons still persist in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

◆

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this: Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discusson—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

The Convention at Chicago.—The following letters have been received relative to the time for holding the convention this fall, upon which Mr. L. Highbarger recorded his "Protest" in our last issue:

> With regard to time of convention, I only care for that which will suit the majority. Some objected to the last week of the Exposition because excursion rates were not given in all directions, and I supposed the Fat Stock Show would make low rates in all directions. There may be force in Mr. Highbarger's objections, as it might happen to come at the time for putting bees in winter quarters. Personally, I shall be satisfied with either time; only, as the AMERICAN BEE JOURNAL says, let it be settled at once.
> C. C. MILLER, *President*.

> In regard to the time of holding the Chicago Convention: The date now chosen (Nov. 16 to 18) is objectionable on account of that being just about the time when most of us will be putting our bees in the cellar. I vote for the last week of the Exposition.
> W. Z. HUTCHINSON, *Secretary*.

◆

Another Hoax.—Mr. A. O. Crawford, of South Weymouth, Mass., has sent us a marked item from the Philadelphia *Medical and Surgical Reporter*. Here is the item:

> An authority on canned goods reveals the interesting fact that most of the jellies in the market are made of apple parings and cores. Sometimes the stock is kept so long that it will not make jelly, then they make strained honey out of it.

Such an absurd *falsehood* ought not to deceive any one, but there is so much ignorance prevailing about honey, that it will no doubt be copied by hundreds of papers, and find thousands (if not millions) of deluded believers—even though it is but a stupid hoax!!!

◆

Mr. T. W. Cowan, editor of the *British Bee Journal*, is now on the Atlantic Ocean, en route for America. Prof. A. J. Cook writes as follows concerning our distinguished visitor:

> DEAR MR. EDITOR:—I am glad you called attention to the visit of Mr. Cowan and lady. As a gentleman of the highest character, honest to the core, generous and liberal in views and pocket, and as one of the very first, if not the most able bee-keeper in England, he demands a royal welcome. Let us all show him that we appreciate real worth, whether it belongs to England or America. I wish we could in some way give him a reception. Possibly we can keep him until our meeting in November.

We are sorry that his visit is made at this, the hottest season of the year. If he could remain here until September, and then have the National Convention at that time, it would be very desirable. By the time our next JOURNAL is issued, perhaps we shall know more of his plans for the future.

◆

A Scribbler for the Hartford, Conn., *Journal* makes a fool of himself, and tries to make fools of the readers by perpetrating the following:

> A process for making artificial honey has been invented and accepted by all the bees that have tried it. This leaves the bees free to gather honey all the day from every opening flower in the season of honey-making without wasting time as wax-workers.

There is not only no truth in the item, but there is no *sense* in it! No one can get an intelligent idea from it. The writer was entirely ignorant of the matter on which he was scribbling! It sounds much like the lingo of a lunatic.

Turning the Tables.—Mr. J. E. Pleasants writes thus to the Los Angeles, Calif., *Herald*, concerning the bee-fruit controversy:

> The damage done to fruit is always commenced by other insects or birds, but it is invariably laid at the door of the bee. Sometimes the fruit-grower knows so little of the physiology of the bee, that he accuses him of gnawing through an inch board to get to his fruit. So the cry is, "The bees must go." If not, they will be trapped and destroyed. Such work is both cruel and unlawful.
>
> As we all know, there are always two sides to a question, for once upon a time a keeper of bees in the mountains, who for years had been quietly pursuing the even tenor of his way, had his tranquillity interrupted by a tiller of the soil who moved into the vicinity and planted his vines and melons. In the course of time the pioneer's bees fed upon the sour grapes and melons of his neighbor, and as it was not their natural food, they became diseased and perished. Whereupon their owner became enraged and called an anti fruit growers' meeting, the decision of which was that the husbandman must go.

◆

Honey will be Scarce, and prices will advance if the crop can be kept off the market in large cities until September. A word of caution to all at this time will be appreciated—do not sell honey to any one of whose financial standing you are not posted, unless you get cash in advance; no matter what are the promises or flattering offers. Either *know* that the party offering to buy it, is either perfectly good for ten times the amount, or pays you cash down. Last year there were several swindlers trying to get honey without paying for it. Hence this timely advice.

◆

All who Desire to become members of the National Bee-Keepers' Union should send to this office for a Voting Blank, and then fill it up and return with $1.25, for which they will receive a membership ticket, entitling them to all the rights and benefits of the Union. Now let every one who believes in defending "our pursuit" against the attacks of the misguided and perverse, join the army of defenders.

The Canadian *Farmer's Advocate*, speaking of the extensive trade in queens between Canada and the United States, and of the detention of queens at the lines between the two countries last year, and of the speedy reversal of that order, says:

> The Bee-Keepers' Union deserves great praise for the able manner in which they have handled the case. Queens with their attendants can now be mailed without any danger of delay.

◆

Nebraska.—The Twenty-first Annual Exposition of the Nebraska State Board of Agriculture will be held at Lincoln, the capital of the State, Sept. 9 to 16, 1887. For further information address the Secretary, Robt. W. Furnas, at Brownville, Nebr.

◆

Frank Leslie's Sunday Magazine for August, 1887, affords pleasant midsummer reading for all. Stories and poems abound, and yet the claims of those who like more solid reading are not over-looked. The eyes of all now looking toward France, the articles on "Chantilly," the Duc d'Aumale's princely gift to the French nation, and the entertaining description of "Metz, its Monuments and Memories," will be especially attractive. Both articles are profusely illustrated.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Dark Substance Stored by Bees.

Query 445.—I am having a very singular and, to say the least, a very discouraging experience with my bees, and would like to ask the apiarists of the Query Department for their opinions and advice. I have 20 colonies of Italian bees located on high ground among small trees of chestnut, oak and maple, not thick enough but that part of them are in the shade and part in the sun. In the last part of last season they commenced to put in the surplus boxes a dark-colored substance not disagreeable tasting, and yet it did not taste much like honey. They began to gather it the *first* of this season—June 22. I took 50 one-pound boxes from two hives, well-filled and capped. Some of the caps were dark. I have not examined the rest of the hives, but I suppose they are all in the same condition. What would be the probability if the colonies were re-queened with black or native queens?—J. H., Mass.

The substance you mention is probably "honey-dew," and the queens have nothing to do with the gathering of it.—DADANT & SON.

I do not think it would help the matter any, but it might. You could tell by trying a few.—G. M. DOOLITTLE.

Most likely your dark honey is "honey-dew" from some species of aphidæ. Black or native queens have nothing to do with the color of the honey.—J. P. H. BROWN.

I suspect that the substance gathered was the so-called "honey-dew," and I doubt if the black bees would refrain from gathering the stuff.—W. Z. HUTCHINSON.

I doubt if re-queening or anything else you can do will make any difference, unless you can provide enough honey-plants so that they will neglect the objectionable source.—C. C. MILLER.

You should not "suppose" but *know* whether the balance of the sections are as those described. I fail to see any benefit by changing queens.—H. D. CUTTING.

I would guess that you have been the recipient of a flow of "honey-dew." Re-queening will not affect the flow nor the gathering of it.—JAMES HEDDON.

The substance called "honey-dew" is your trouble. You may not see it another season, and you may. Changing the stock of your bees will do no good. Honey-dew will be honey-dew, no matter what race of bees collect and store it. When you change your Italians for black bees, if you do not repent of the job you will do me a favor by "letting me know."—G. W. DEMAREE.

The fault is not with the bees, but with the source of supplies. Why not look about and see where the bees get such honey? The black bees would doubtless do the very same thing. Surely they would unless this suspected honey was from some flower which was too deep for their shorter tongues.—A. J. COOK.

I have never had an experience of this nature; probably the bees find this nectar (?) on the forest trees surrounding them. The probability, if the colonies were re-queened with black queens, would be that in a few months the workers would be black, but I do not imagine that it would make a particle of difference with the present or future honey crop. You would do better to change the location of your apiary.—J. E. POND.

My experience and observation both confirm the fact that black or native bees and hybrids are the worst bees we have to pile up dark, disagreeable and unsalable honey. I have known Syrian bees to store beautiful and fine-flavored honey when colonies of blacks and hybrids in the same yard stored a dark, foul-odored stuff not fit to eat. A change to black bees would not be apt to help the matter.—G. L. TINKER.

Doubtless it is the so-called honey-dew. Provide superior pasturage and that trouble will be over. To change queens will avail nothing.—THE EDITOR.

Getting Bees out of the Sections.

Query 446.—As neither smoke nor shake will clean out the bees from the filled surplus boxes when I take them from the hive, how can I get them out of the section-boxes when they are removed from the hive after being full? This part of the work should be the most pleasant, but to me it is the most unpleasant work of the apiary. —Oshkosh, Wis.

Remove them to a dark room with a small opening emitting a little light. The bees will make for the light and pass out.—J. P. H. BROWN.

Put them in a bee-tent or dry-goods box, as often recommended in the bee-books and bee-papers.—A. J. COOK.

If you do not wish to take the boxes apart, you should pile them in a large box or in a dark place covered with a cloth, when the bees will all concentrate together in one of the crates, or sometimes on the outside of them. —DADANT & SON.

You can do it by pouring a deluge of smoke between each tier of sections and waiting just long enough for the bees to run down, and not long enough for a reaction to take place. I have no trouble in taking off honey nearly free from bees.—G. M. DOOLITTLE.

If but few bees remain in the case, remove it to some room with a window; the bees will leave it and go to the window, when you can open it and let them fly. Close the window at once so that no bees can return. If many bees remain, take out the sections there and then brush off the bees and carry the sections to some safe place.—H. D. CUTTING.

Smoke them "like sixty" before you take off the sections, then take them off quickly before the bees have time to go back into them, and carry the sections to some place where the remaining bees can take their own time to get out, but are not able to get in again.—C. C. MILLER.

The "shake out" process amounts to nothing in practical work. There are but two ways to get bees out of surplus cases when filled with honey. The first is to take out the sections, one at a time, and brush the bees off of them; or, second, my way is to smoke and brush out as many bees as I can without too much loss of time, and then put the cases in a dark closet that is provided with a bee-escape in the door. The bees will leave the cases in a few hours, passing out at the "bee-escape," which is so arranged that no bees can enter the closet from the outside. I would not be without this contrivance for any reasonable sum of money.—G. W. DEMAREE.

I have very little trouble in this direction, as I can usually drive out all but 2 or 3 to a section at once. If they cannot be gotten out by brushing, put the sections into a large box in the shade and cover with a sheet. The bees will crawl up to the sheet, when they can be shaken off. Proceed in this way until all have left. The shaking so disturbs the bees that they do not return as they would if the box was not covered.—J. E. POND.

With properly constructed supers, smoke and shake will rid them of nearly all the bees, and then the few remaining ones I get rid of by placing the supers on end (so that light and air can readily pass through the combs) in my screen-house or a darkened room with one light-hole out.—JAMES HEDDON.

There must be something peculiar about your bees, fixtures or management." "Smoke and shake" will nearly clear a case of honey of bees, when the case may be carried into a house and placed upon end. The few remaining stragglers will seek the windows, which should be so arranged as to allow the bees to escape. See page 23, "Production of Comb Honey."—W. Z. HUTCHINSON.

A perfect surplus arrangement should enable the bee-keeper to take the sections free from bees quickly and agreeably. This cannot be done with the T-super cases or others constructed on a similar plan, and hence they are to me quite objectionable. In my opinion we shall not get a more perfect thing than the "wide-frame" case with *movable* separators. With it I can easily take 60 pounds of comb honey in one-pound sections, free from bees, inside of ten minutes. I know of no other arrangement by which it can be done. Only part of the bees can be smoked or shaken from a separatored case without taking it apart, until the bees fill themselves with honey and get a good ready; and then serious damage is often done to the combs before leaving.—G. L. TINKER.

With open-top sections "smoke" will drive the bees out in all ordinary cases. If it does not in your case, put the supers in a dark room, with a small aperture. The bees will leave by the latter.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named: ♁ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

The National Bee-Keepers' Union.

SECOND ANNUAL REPORT.

To review the work of the National Bee-Keepers' Union at the end of the second year is a very pleasing duty—for we do not discover anything which could have been done more satisfactorily—the results having been all that could be desired,

The officers were all re-elected by over a two-thirds vote, with the exception of the General Manager, who received every vote cast. Regarding this unanimous expression as a "vote of confidence," the Manager entered upon the work of the second year with renewed energies, hoping for a large increase of membership, and a consequent additional influence for the Union.

The Union Victorious Every Time!

In all the attacks against the pursuit of bee-keeping, which the "National Bee-Keepers' Union" has deemed it expedient to vindicate, it has scored a victory! What no individual apiarist could have achieved single-handed, it has satisfactorily accomplished in a short time.

In the face of this showing, it is strange that any bee-keeper should hesitate to become a member of this organization. It ought to have thousands of members where now it has only hundreds. It is to the *interest* of every apiarist to become a member. Nay, it is not only that, but it is a *duty*, which, if neglected, will operate to his or her disadvantage. As the Union will defend only its members, who became such *before* any lawsuits were commenced against them—all should take time by the fore-lock, and "join the Union" *at once!*

Several "suits" have been allowed to go by default in justices' courts, so that we could "appeal" them, and thus have the decision from the higher courts. This plan has been eminently successful, and productive of good.

Mailing Queen-Bees and Attending Workers.

The first thing which demanded the attention of the Union during the past year, was the action of the Post-Master at Griffin, Ga., who refused to receive a "queen-bee" in the mails, because of the "attending workers," the Postal Regulations permitting only "queen-bees" in the mails—not drones or workers!

The Manager of the Union, Prof. Cook (Vice-President), and the Hon. Edwin Willits, each made an appeal to the Post-Office Department at Washington to have his action overruled. It was only a technicality, but as "necessary attendants" were essential when mailing queen-bees, it was a vital point to apiarists.

The General Superintendent of the Railway Mail Service, ordered the Regulations to be revised, so as to read "queen-bees with necessary attendants," and so advised the Post-Master in Georgia, the Manager of the Union, and others. Since that time we have heard no complaint on that score.

The *Canadian Bee Journal* comments on this matter in the following words: "That the Bee-Keepers' 'Union' is in itself a mountain of strength to the bee-keepers of the United States, is a fact beyond dispute. The postal laws were so construed during the past month that a few bees were not permitted to go with the queen by mail, and this meant nothing more nor less than that the traffic in 'queens by mail' was put an end to. Thanks to the 'Union,' and the efforts of one or two influential gentlemen outside, the barrier has been removed, and the necessary attendants allowed transmission along with the queen."

Sending Queens to Canada.

Complaint was made that queen-bees sent to Canada had been stopped at Suspension Bridge. This was referred by the Manager of the Union to the Superintendent of Foreign Mails, and that difficulty was promptly removed. It was occasioned by the officiousness of the Post-Master at Suspension Bridge, N. Y., and he was notified to "let the bees pass." So ended that trouble.

California Fruit-Bees Trouble.

The Bohn case, mentioned in my last Report, was appealed to the Superior Court. The decision there given was on technicalities, and practically ended the difficulties. The expenses of the suit and appeal amounted to $384.50; of this the Union has paid one-half, and Mr. Bohn the other half.

In this case the resistance of the Bee-Keepers' Union was too much for the fruit-growers—and that trouble, which was proclaimed by a Nebraska apiarist to be "too much for the Union to compete with," is now all conquered! the raisin-growers admitting that they were mistaken!

Foolish warfare against bees seems to be the rage! The idea that fruit suffers because of the presence of bees is simply ridiculous! The good they do in fertilizing the fruit trees far outweighs any possible evil that may follow from their presence.

That Scientific Pleasantry.

Dr. J. H. Kellogg, of Battle Creek, Mich., in his book entitled "Good Health," had reiterated the Wiley *lie* about the manufacture of combs from paraffine, and filling them with glucose, and capping them by machinery, etc. The Manager of the Union wrote to him concerning the matter, and asked for a retraction. Dr. K. replied, thanking the Manager for calling attention to the error, promising to correct the plates of his book, and by every means in his power to counteract the influence of the false statement, which he had copied from Prof. Wiley. He retracted the matter in his paper entitled *Good Health*, for August, 1886.

The *wily* part played by the originator of that so-called "scientific pleasantry," will cause his name to be execrated by honest persons all the World over. And if he should live a thousand years, and devote all his remaining life to atone for the damages he has already done to an honest pursuit, he would die an infinite debtor to it; for the multiplying tongue of slander and falsehood never can be controlled or made to cease its villainous calumnies! His name will

> ...."Go down
> To the vile dust from whence he sprung,
> Unwept, unhonored, and unsung."

Removal of Bees from Cities and Villages.

M. Darling, of Waterbury, Conn., was sued for $500 damages by a neighbor, and to compel the removal of his bees. The case was instigated by malice and jealousy, and was dismissed as soon as it was discovered that he was "backed up" by the National Bee-Keepers' Union! The expenses were $50, of which the Union paid one-half.

S. W. Rich, of Hobart, N. Y., was sued by a jealous and disagreeable neighbor for $1,500 damages, and also to compel him to move his apiary outside the city limits. This suit is defended by the Union, and is as yet undecided!

C. C. Richardson, a gardener, was sued for keeping honey bees on his land in Tipton, Ind., alleging that they were a nuisance. This was also defended by the Union, and as a result, it was dismissed by the court. The costs were $20; and one-half of it was paid by the Union. This is the "case" which was so badly *misrepresented* at the Indianapolis convention, by an officious neighbor, and it is with *much satisfaction* that I am now able to say that the "Union" was "too much" for the enemies of the pursuit of bee-keeping!

The City Council of Fort Wayne, Ind., passed an ordinance against keeping bees within the city limits. If enforced, it would practically wipe out the pursuit of bee-keeping there. Such a pressure was brought to bear by the bee-keepers, backed up by the Union, that the ordinance is a dead letter, and it is expected that it will soon be repealed, if it has not already been done.

In Arkadelphia, Ark., the City Council ordered Z. A. Clark to remove his bees from within the city limits within 30 days. Major J. L. Witherspoon, ex-Attorney General of Arkansas (who stands at the head of the Bar of the State), was employed to attend to the matter on behalf of the bees. The National Bee-Keepers' Union backs up Mr. Z. A. Clark to fight the case on its merits.

The thirty days have expired, and the bees are still there. Public opinion is strong against their removal, and the newspapers are teeming with ridicule of the order to remove them.

The Union will stand by Mr. Clark in this matter, and see it through, for it would be very detrimental to the pursuit to allow a decision against bee-keeping to be put upon record on the plea of its being a "nuisance."

Proposed Legislation in Michigan against Bee-Keeping.

The McCormick bill introduced into the Legislature, intending to "wipe apiculture out of Michigan," as Prof. Cook stated it, raised such a buzzing about his ears that it was tabled on his own motion, *and there died.* The President of the Union (Mr. Heddon), as well as Vice-President Cook and the General Manager all labored with Mr. McCormick to bring about the before-mentioned result.

Here we have another result of the benefits to be derived from organization and combined effort. The members of the Bee-Keepers' Union have many triumphs to feel proud over, and this adds another laurel.

Amendments to the Constitution.

Many amendments to the constitution have been suggested, and as I approve of the following, I herewith present them for the approval or disapproval of the members:

The first is the provision that not more than one assessment (of one dollar) shall be called in any one fiscal year without a majority vote of all the members approving the same, upon the presentation of the facts, in the case that the extra dollar is asked for. This was suggested at a convention, where it was stated that without some such amendment, the assessments might become burdensome.

Another is, extending the time before a membership becomes delinquent from 30 days to 6 months. This is to accommodate those who are temporarily embarrassed by the stringency of the times.

Another is to make the annual Fee only one dollar—to cover every expense, and constitute only one fund.

These amendments will take effect on Jan 1, 1888, if adopted by a majority vote of the members on the Blanks which accompany this Report.

It is argued that these amendments will simplify matters, take away objections, and add very largely to the membership.

* * * * * * *

I now submit my second annual Report with the hope that it will meet with the approbation of every member. If I have failed in any particular to act for the general interest of the pursuit of bee-keeping, it has been unintentional—that having been my only aim.

THOMAS G. NEWMAN,
General Manager.

[The rest of the Report gives the Constitution as it will read if the proposed amendments are adopted; a financial Report, showing $224.25 in the Treasury, which will about cover the expense of the several suits still before the courts and in an unfinished state; Election of Officers, etc.—ED.]

For the American Bee Journal.

The Honey Crop of 1887.

JAMES HEDDON.

I need not tell any bee-keeper who enjoys the many important advantages gained by reading the AMERICAN BEE JOURNAL, that the American honey crop is a very short one, and as supply and demand control prices and readiness of sales, we may look for a lively call, and at least fair prices for our 1887 honey crop.

I do not claim to know, but I do most firmly believe that it will pay us all this year to offer little or no honey to the markets, till the advent of cooler weather, when the natural appetite for sweets begins to call for our product. If we hold back until the consumers have called loudly to us, and even the second and third time, prices will rule higher and firmer from the beginning to the end of the 1887 supply.

The crop here is about one-fourth the usual amount, so far in the season, which part embraces all the white honey yield from clover and basswood, leaving the amber honey-flow from autumn flowers yet before us, and yet an unknown quantity, and none too promising. My increase of bees has been small, but nearly 600 colonies have stored several thousand pounds of each, comb and extracted honey. My home apiary is worked for comb, and the out apiary for extracted honey; both exclusively so. I find this specialty conducive to economy.

PLEURISY-ROOT AS A HONEY-PLANT.

This plant, which I have previously written about, is still so rapidly increasing that at this rate, in a year or two more, we shall realize a good surplus crop from it. I have never seen so fine a honey-yielder and promising a bee-plant. Again this season the honey stands in drops in the blossoms. Bees never fail to work on it in large numbers right through the basswood flow, as it begins to bloom at about the beginning of basswood, and lasts all through it, and on till buckwheat and autumn flowers are in full bloom. The plant is not only perennial, but very tenacious, yet readily yielding to destruction by cultivation. The more I see of this plant the more I cherish it, and I am now willing to go on record as saying that I believe it is the best, and the coming honey-plant.

It is not only true that I would plant pleurisy-root on valuable land, and cultivate it sooner than sweet clover or any other honey plant, but I consider it most valuable because it is the grandest of all plants to succeed and rapidly increase when sown in waste places. The two extreme drouths which burned away three-fourths of our ordinary clover and basswood yield, seemed to have no effect on the pleurisy-root, which is to-day in full bloom, with white nectar visible in the nectaries, and covered with busy workers. Four years ago we could see but rare specimens of the plant, but now (through the aid of the bees, I think) they are to be found almost any where, but hardly plentiful enough as yet to yield a surplus for 300 colonies. Robbing after basswood flow is a thing of the past, unless criminal carelessness is practiced. Mr. McLain has not said half enough in its favor, in his praises of it on page 424.

Dowagiac, ♀ Mich., July 8, 1887.

Semi-Tropical Planter.

The Honey Crop of California.

F. C. FOX.

The seasonal prospects have grown small by degrees, and beautifully less. Only the most sanguine apiarists now expect any surplus honey at all; the majority give it up, and some have already abandoned their bees and gone elsewhere for occupation. Yet we are informed by a paragraph in a San Diego paper that, "the honey crop promises to be a good one!"

Such heedless and mischievous nonsense ought to be contradicted. The bee-men know better, but dealers who are still heavily stocked with last year's crop, might be led to unload at a sacrifice lest another (imaginary) large one should begin to pour in on top of the former. It makes little difference to the apiarists; they hold nothing over; their crop almost invariably goes to market as soon as gathered. One remarked to me, "What do we care for the state of markets when we have no honey to sell." I will suggest to those interested, that they need not depend upon mere assertions, whether anonymous or otherwise. There are omens from which any one can form an independent opinion about the probable crop.

Production tallies very closely with the rainfall. Our heaviest yields followed 40.25 inches of rain in 1884, and 24.84 inches in 1878, although 1886, with 26.23 inches, gave somewhat less than in 1878.

It may be assumed as a rule that less than 20 inches here never gives a *good* crop; and 12 inches or less, none at all.

Taking 1878 as a sample good season, I find (by record) that the bees began to gather honey freely in January, and drones appeared in my apiary on Feb. 5. The first swarm issued on March 16, the hives being then crowded with bees and heavy with stores. Still it was not until May that we began to take out honey for market. Thus it is apparent that for a good crop, there must be early abundance to stimulate breeding, and make colonies strong enough to gather the surplus or marketable honey of the late spring and summer months; few apiarists in this climate try to stimulate colonies by feeding, etc.

Now compare with the above the aspect this season has presented throughout. After almost a rainless December and January there was, to be sure, a heavy downpour in the first part of February, but it was then too late for a full crop. By the time the growth from those rains could be utilized, two important preparatory months were irreparably lost, and the time for storing surplus honey equally shortened, however favorable subsequent weather might prove.

When March 20 arrived, which is the average swarming time here, and even the preliminary drones had not appeared, it was evident that the *bees* did not anticipate a good season. Neither has subsequent weather proved favorable. Colonies have retrograded and eaten out the little surplus stored by some strong ones after the April rain. The total season's rainfall to May 1, has been here only 10.25 inches, against an annual mean of about 17.50 inches. As 2 inches of above, in November, was rendered useless to the bee-business by two succeeding dry months, the available total conforms nearly to those of the dryest seasons in fifteen years, viz: 1877, with 8.60 inches, and 1879 with 8.29 inches.

Another unfavorable feature of the past winter has been an unprecedented continuance of dry north winds, absorbing moisture rapidly from the ground, and choking out the shallow-rooted annual plants. Also a coincident lack of dews and wet fogs that are equally important with rain.

All this is no news to "bee-men," but it shows how easily one in San Diego or elsewhere could measurably see the possibility or impossibility of a good honey crop, and need not be misled by paragraphs quoted perhaps from a source 500 miles distant.

A comparison of weather records with previous years will, by the middle of February at the latest, give data for a pretty reliable estimate of the coming season. This unproductive season may yet prove a blessing in disguise; giving bee-men leisure for other, and more profitable, undertakings.

Fall Brook,⟜ Calif.

For the American Bee Journal.

Dry Season—Buckwheat for Honey.

J. W. SANDERS.

We have had an extremely dry season, having been almost without rain since the snow went off, excepting a few light showers. We had a good rain on July 1, that wet down plow depth,the first to wet the ground since planting began. Pastures and meadows are very short. Wheat and oats are short, and badly damaged by the chinch bug. Hundreds of acres will not be cut. Corn looks well, but some is being damaged by the bugs.

The drouth is the greatest ever known in this part of Iowa. White clover is almost an entire failure; we had enough to keep the brood-chamber in fine condition, but no surplus from that source. Our bees began on linden about June 25, improved the time for several days, but they seem to be about through now. During this time my bees have stored in the upper stories as well as in the brood-chamber, but I did not succeed in getting any to work for comb honey in the sections. All the colonies seem in fine condition for the fall honey, if we have any. This will depend upon the amount of rain that we have.

There has been a large amount of buckwheat sown in this vicinity, and our July rain has brought it up nicely; so we hope there is a better time coming, and we will have the privilege of feasting on buckwheat cakes covered with buckwheat honey the coming winter! Some seasons we have had a fine fall yield from heart's-ease and goldenrod. Hence our motto is, "Do not be discouraged."

Le Grand,⊙ Iowa, July 7, 1887.

For the American Bee Journal.

Roaring in Winter—Hiving Swarms.

G. M. DOOLITTLE.

I am asked by several to give my views about bees roaring in winter, as this question is now being discussed in the BEE JOURNAL.

Years ago, when I first began to keep bees, I read that in cold weather bees were continually changing places in the cluster to keep an even temperature of the same, for, did they not do this, those on the outside would become benumbed with the cold and freeze; and beside, to avoid freezing in extreme cold weather, the whole colony would arouse from this quietude and create heat by roaring or getting in a commotion which always results in a roaring sound.

Of course being desirous to know about all of these things, I began watching every chance I had to see this working of the warm bees out from the centre of the cluster, and the crawling of the partly-chilled ones in; but to this day I have never seen such a process going on when the bees were not interfered with by the keeper, except as below. Do not understand me as saying that bees never do such a thing; all I wish to say is, that with the closest scrutiny I was able to give, I never saw such a thing done.

Nature has provided that in cool weather a certain portion of the bees should form themselves into a sort of a "crust" or outer shell, so as to hold the heat inside the cluster. Those inside are always warm and comparatively active, and upon the slightest disturbance these warm bees will break through the "crust" bees, and come out all ready to protect the colony, which the "crust" bees are incapable of doing on the first disturbance. Those which thus break through the "crust" of bees will sting wickedly on a zero morning, if they can get at a person's flesh before the cold chills them. In a few moments after being disturbed the "crust" bees become active, and a roaring is set up which is generally taken for the warming-up process spoken of at first.

It takes very little disturbance to cause this breaking up of the cluster or "crust" bees, and the commotion following, and I have but little doubt that the whole theory sprang from some person opening the doors about a glass observatory hive, and seeing what I have described go on, attributing it to Nature's plan of keeping the bees warm, rather than to the disturbance he had caused.

In the above I have given one cause for bees roaring in a zero temperature, and how the changing process may be observed. But there is another cause for bees roaring and "breaking cluster," which occurs every week or so in cool or cold weather. When the unsealed honey becomes exhausted inside of the cluster,sufficient warmth is produced so that the bees can spread out over the sealed stores so as to get a new supply, for as far as I have observed there is always kept a supply of unsealed honey on hand at all times. In thus spreading out, a roaring is set up loud enough to be heard quite a little distance from the hive. By this roaring I have often detected the bees at carrying honey, and years ago, before I fully understood what it meant, I thought that the bees had become overloaded with fecal matter, and were about to have the bee-diarrhea; but an examination a day or two afterward showed them all quiet and nice.

The above instances are all the roaring of bees I ever could detect with a temperature below the freezing point, no matter if as low as 30° below zero. I have been in the bee-yard scores of times, with the mercury below zero, sweeping snow about the hives, and unless as spoken of above,all was quiet as death, as far as I could hear, unless the ear was held closer to the entrance, when the least, little, low, contented hum was to be heard, though scarcely audible if there was the least bit of air stirring. This contented hum is always heard if bees are alive, and it is evidence that the bees are in fine condition.

HIVING SWARMS.

For the benefit of the newer subscribers of the BEE JOURNAL, I wish to give my plan of hiving swarms and preventing after-swarms, which has worked so admirably with me for the past three summers, and pleases me better than ever to-day.

I put into a light box or comb-carrier the number of frames I wish to hive a swarm on, all started with strips of foundation, ready for the bees, and as soon as a swarm issues I step to the front of the hive and get the queen, with wing clipped, in a wire-cloth cage. Next I take the frames from the box and put them at the side of the hive, when I open the hive and take out the frames of brood with the few adhering bees, placing them in the box. I now put in the started frames and rearrange the surplus arrangement, closing the hive. I then lay the caged queen close to the entrance, and take the box of brood and bees to an empty hive previously put where I wish the hive of a colony to stand, when the combs are put from the box into the hive, the same being closed.

By this time the swarm is returning to where it came from, when the queen is liberated, which immediately runs in and the swarm is hived. The next day a just-hatched virgin queen is dropped in honey and put into the hive having the frames of brood. Reader, try it.

Borodino,⊙ N. Y.

For the American Bee Journal.

Pollen in the Sections.

W. Z HUTCHINSON.

Before me lies a letter from Mr. Dwight Furness, in which he says:

"I have just had a few days visit at home in the bee-yard, and send you a bit of my experience which may serve you as a text for another article in the AMERICAN BEE JOURNAL.

"Clover is yielding very little, and the combs are filling up very slowly from sumac and tulip or whitewood. The honey is rather dark. Basswood is budded full, and may partly serve to prevent a total failure of our honey crop. Bees are swarming at the rate of two or three swarms per day.

"Up to the present time I could heartily endorse your article in regard to 'Pollen in the Sections,' on page 328 of the AMERICAN BEE JOURNAL, but 'trouble' has come to me at last.

"During the past week we have hived some 15 swarms on empty frames in single, Heddon brood-cases, with queen-excluding honey-board, and a case of sections on each—sections either full of comb or partly drawn foundation. Nearly all of these swarms have deposted more or less pollen in the sections. Where foundation only is used in the sections, little or no pollen appears. I practice the Heddon method of preventing after swarming. Now, when the swarm issues, pollen is coming in at a lively rate; hundreds of workers are returning from the field laden with pollen, which is carried into the new hive upon the old stand. All of the bees that leave the old colony the first day are also thrown in with the new swarm, and carry with them the pollen gathered for the brood in the parent hive. So that *even if it be true*, as you suggest, 'that new colonies gather little or no pollen for several days after hiving,' a good deal of pollen comes in, and is of *necessity* placed in the empty section cells.

"Locality will not change this result unless there be places where very little pollen can be found during the swarming season. *But the amount of honey being gathered is an important factor.* If the sections taken from the parent colony and placed over the new swarm were partly filled with honey, it would tend to keep out the pollen.

"It is perhaps but proper to state that honey is coming in very slowly, and an unusual amount of pollen is being gathered."

As I stated in my former article, this matter of pollen in the sections is something I know but very little about, having had almost *no* trouble from this source. In the early spring my bees have always gathered large quantities of pollen from willows, fruit-bloom, dandelions,sugar maples, raspberries, etc.; the two outside combs often being nearly one-half filled with bee-bread upon the eve of the swarming season; but from white clover and basswood very little pollen is gathered. In the early spring it seems as though one-half of the bees come in loaded with pollen, while during the honey harvest from white clover and basswood not more than one bee in twenty bears pollen to the hive.

I think, however, that Mr. Furness has struck upon a very important point in this problem when he says that the amount of honey being gathered is an important factor. I can very readily understand that the inducement to store pollen in the sections would be much greater if they were filled with *empty* combs, than it would be were there honey in the combs; and this reminds me that I have never hived a swarm and placed over it sections filled with *empty* combs, the combs always having contained honey, and herein may lie *one* great secret of my success. Did I have the trouble mentioned by Mr. Furness, I would try putting one frame of comb in the brood-nest.

I am very much obliged indeed to Mr. Furness—in fact to all who have written me so many kind, encouraging and instructive letters.

Rogersville,♂ Mich.

Read at the Maine Convention.

The Bee-Pasturage of Maine.

DR. J. A. MORTON.

To the bee-keepers of Maine the subject of bee-pasturage is a very important one, and volumes might be written upon it, but an essay of this sort must of necessity be brief, and the writer can only hope to give some general ideas and plans of increasing the nectar-bearing flora of his own immediate locality and State.

Most of the profits of bee-keeping come from the sale of surplus honey, and if we expect to reap much profit from this source in this part of the country (especially in Maine), when the honey-gathering season is short, uncertain and variable; when Spring is such a fickle maiden, more frequent in pouts and tears than in sunshine; when Summer with blushing cheeks and flashing eyes, rushes past with railroad speed, scorching with her hot breath bee and blossom; when Autumn with his "sere and yellow leaf," hastens in the footsteps of his more youthful sisters, and last of all, Old Winter puts his seal of ice on forest, field and stream—we must give our faithful little "servants" every facility for securing the sweet harvest in its season.

And after securing the best bees and best appliances in the apiary, we must lengthen and strengthen that season by endeavoring to produce an unbroken succession of honey-producing flowers from spring to fall, thus making a strong chain from the golden willow in April, to the golden-rod and frost-weed in October. The question is, can this be done in Maine? I think it can: Let us see.

Let us take a glance at Maine from a bee-keepers' stand-point. She is equidistant from the equator to the pole, the 45th parallel of latitude running through her very centre. From her geographical situation she is too cold to be the natural home of the honey-bee; and her native trees and plants are of hardy, rugged varieties, and can produce but few nectar-yielding flowers; but what they do yield is of first quality. Like the sweet corn of Oxford, the honey of Aroostook cannot be beaten, if it can be equalled.

In our pioneer settlements of wooded countries, men have been to free with the axe, too prodigal of the forest. It seems a great shame that so few of our ancient pines—the pride and glory of our State—should be left standing; still their destruction is not an unmitigated evil. In their stead has come forth another creation, as marvelous if not as majestic. New varieties of trees and plants have taken the places of those that perished; the wild woods became fields, clothed with tender grass and beautiful flowers, and with them came the bees. And as civilization spread from the ocean to the Northern lakes, the flowers and bees followed in its onward course.

Probably Maine to-day yields more honey to the acre than she did five hundred, two hundred, or even one hundred years ago. But in many places the fertility of the soil has been exhausted, the honey-bearing flowers are running out, and the barren pastures and fields are producing only barren plants. This has been brought about by wrong methods of agriculture. On many of these once fertile valleys and hills cattle have grazed more than a hundred years. Not only have the natural grasses and flowers been destroyed, but even the very shrubs and trees have been browsed down to the ground, so that now neither flocks nor herds, neither birds nor trees can subsist; and if we would have them, we must re-juvenate, re-fertilize, and re-plant the same old pastures and fields. There is no better method of doing this.

But I return to my subject, and will try to give the best method of improving our bee-forage. I will give a short list of our trees and plants most esteemed for this purpose, as many as I can in the order of their flowering. They are: the willow, poplar, maple, sugar plum, horse-chestnut, cherry, gooseberry, plum, and apple blossoms; dandelion, raspberry, blueberry, blackberry and other small fruits, and the honey-locust tree. This will take us nearly if not quite through June; at which time the white clover begins to come, and with sweet, Alsike and red clover and basswood, fireweed, goldenrod and frost-weed, and other late fall flowers, besides many others, such as motherwort, catnip, white alder, and others producing honey only, and buckwheat which is a rather uncertain crop. I will now make more particular mention of the most important of these:

Willow gives us the first pollen and honey. If not found in sufficient quantity along our brooks and swamps we can use it to advantage as a strong hedge or live fence near our apiaries. Poplar and maple are generally plenty enough; but I wish to call particular attention to the sugar plum as a honey-plant. It is a humble little shrub often found in abundance in many localities, from 2 to 15 or 20 feet high; hardy, graceful, clean, free from disease or insects. It has beautiful heart-shaped leaves, which remain on late in the fall. It blossoms early in May; flowers are white and fragrant, yielding nice pollen and honey. It is much used in some countries as a small, ornamental tree on lawns and in garden work, but I do not remember of its having been noticed for its honey, or any other purpose than just mentioned. I think it would make a splendid hedging shrub, and would be particularly neat and tasty as well as useful with which to enclose the bee-yard, so that the bees might work on its flowers without going far from home, while the early spring weather is so liable to sudden changes. Its fruit too is delicious, and is supposed to be the same as that partaken of by the ancient lotus-eaters, referred to by Tennyson. Its generic name *celtis* is the Greek for lotus. It can be easily propagated from the small shrub found wild, or grown from the seeds. I urge you to give this shrub a trial.

Next comes the horse-chestnut, a most beautifull tree both as to foliage and flowers; the latter are gorgeous and fragrant, and a delight to the bees. We should have more of these trees along our streets and by-ways. They grow fast from the nut.

I now pass lightly along through cherry, plum, apple, and the numerous small fruit and wild blossoms nearly through the month of June; and now, if the colonies are strong, comes the fruition of all our hopes; led in by the early blossoms of the white clover, and closely followed by the red, Alsike, and sweet clover. You all know enough about white clover. The red I think should be discouraged amoung bee-keepers, and we should put Alsike in its place, as it is as good for enriching the soil, makes better hay or grazing, and is best for honey. But the best of all the clovers is the sweet clover, which is in reality not a clover at all. Its very name "Melilot," is taken from two Latin words—Mel, honey; and lotus—it really translates honey—lotus, and its name is its best recommendation. No plant known to bee-keepers is equal to it for its production of honey. It is hardy, will grow anywhere from a muck swamp to a dry sand knoll; it blossoms constantly after the first year from the last of June till the severe frosts kill it down. It makes an excellent renovator of worn-out soils if left to decay in the ground. Perhaps the best way to try it will be to sow a small piece in the field to save for seed, and sow all you can in the old orchard or pastures, and feed it very sparingly or none at all for several years.

The honey-locust comes in the first part of this season. A tree of beautiful foliage and flowers of a most delightful fragrance, and yielding honey in abundance. It may be used as a shade tree along our fence corners and roads, but is rather a trashy tree for ornamenting the home grounds. The best use I can think of for it is as a hedge-plant; it is just the thing for that.

For the American Bee Journal.

Combless vs. Extracted Honey.

MISS DEMA BENNETT.

I have read Mr. Demaree's article on page 421, and the Editor's comment on the same. While I have no particular objection to the word "extracted" as applied to honey—never having the trouble mentioned by Mr. Demaree—and also not having read the article on page 291, in which the Editor states his objections to it, I think, with him, that "liquid" is not an appropriate word.

The honey in the combs, before being uncapped, is more perfectly liquid than it is after it has been extracted from the combs, and exposed to the air. Mr. Demaree speaks of water as an example, but it has an entirely different name when it becomes solid.

The thought came to me, that as honey in sections was known as "comb honey," extracted honey might with propriety be called "combless honey." We have "seedless" raisins and "boneless" codfish —then why not *combless* honey?

Do not think that I am writing in the interest of manufacturers of honey-labels, for if all the country is as "honeyless" as is this particular locality in the Western Reserve, they will not have to get up a new set this year.

Bedford, O.

For the American Bee Journal.

Removing Bees from Section-Cases.

J. W. BAYARD.

In discussing Query 404, nothing new was developed, but old plans rehashed, as well as some good advice given. As the time is at hand when all bee-men must "face the music," I feel constrained to give my plan for what it is worth.

All using other than open-top sections, are working to a great disadvantage in many ways. I used the closed-top sections for many years, and before the advent of the smoker I used to blow the smoke among the bees from a roll of rags, or through a goose-quill, by smoking penny-royal in a pipe, and thereby giving the robber bees a fair show to help me out. Some four years ago I adopted the Heddon-case (with sundry modifications), hence came a new plan for expelling the bees by a very simple machine and process, as follows:

Take a smoothly-planed inch board, just the width of the section-case, but 2 or 3 inches longer; tack strips ⅞-inch square on each front edge of the board, and also across one end, forming a kind of pocket for the smoke, and the machine or smoking-board is finished and ready for use. I always use a neighboring hive as most convenient for a base of operations. Being armed with the board, chisel, whisk-broom and smoker, I am ready to operate.

I turn back the enameled cloth gently and pour in the smoke among the frightened bees, most of which will run below, but ere I pry off the case, hundreds will have returned to contest the possession of the hive. I now quickly place the case of honey on the smoking-board, and with a good smoker you would be delighted to see the bees and smoke rush up from between the combs, the former taking refuge in the parent hive, and within from three to five minutes the case of honey is ready for the honey-house.

I never require more than ten minutes to each hive, and then the work is done thoroughly and in defiance of all robber bees, at any time of the season.

Athens, Ohio.

For the American Bee Journal.

Selling Honey—Extracted Honey.

H. O. KRUSCHKE.

The following taken from the Milwaukee *Sentinel*, is the kind of a notice we want to see in every paper—it would help to get rid of a great deal of honey:

> We manufacture and keep on draught the celebrated "Honey Mead," at 5 cents a glass.

This is in accord with my suggestions of last summer. Honey must be consumed by the ton before we can expect better prices. These are the channels to be opened: Mead, wine, vinegar, medicine, etc., which will tell the story. Ask the advertiser to state to the bee-keeper of America how it goes. We want 10,000 such salesmen.

I would like to aid in securing a name in place of "extracted," when speaking of honey out of the comb. I have settled on three names, and will place them in the order I prefer them, viz: separated, comb-freed, and combless honey. The first I think is the best; it is as short as the English language affords for this purpose. It is the word that should have been used when the extractor or *separator* came into use; it would have saved us a great deal of explaining. It can be understood by all, as it tells that the honey has been disconnected from something, viz., from the comb.

"Comb-freed" is also good; it tells that the honey was in the comb, but has been removed from it. The objection I anticipate is, that in our abbreviating business parlance the first part comb would soon be dropped, then we would have "freed" honey—good enough for the fraternity, but not for the honey-eaters. It would still be more abbreviated to "free" honey, which would be no better than what we have. It would constantly have to be explained. The last, "combless," is not bad, but the people would imagine we had a new kind of bees that *make* honey without comb; many questions would have to be answered. But "separated" honey will require the least talking, and I do not think we can get anything better.

Deuster,⊙ Wis.

[Of the three we prefer "combless honey;" like *boneless* fish or *seedless* figs! But something better than that is what we need—something needing no explanation.—Ed.]

Colorado Farmer.

Honey Crop of Colorado, etc.

ROBERT JAMES.

The outlook for honey for this season is very good at the present time. The reports from different sources, so far, are very encouraging. Bees are swarming well, and the new swarms are gathering lots of very nice, clear, light honey. The wild black-sage is in full bloom, from which the bees gather very fine honey.

The Rocky Mountain bee-plant has been in bloom nearly three weeks, but I do not think the bees are getting much honey from that source at present. Where alfalfa is in bloom the bees are very busy on the blossoms, and the honey gathered from that source is very nice. The wild poppy (called by some milk-weed) yields very fine honey also, but the wild rose, now about gone out of bloom, furnishes the most delicious honey I have tasted in Colorado.

The bees work on the cactus bloom, but whether they get anything more than pollen from it, I cannot say. Our principal honey crop comes the latter part of July, and continues until our September frost.

The weather now is very good for honey-gathering, and should it continue to be favorable, we will hear of some large yields of honey per colony, at the close of the season.

INTRODUCINO QUEENS.

In introducing a fertile queen into a queenless clolony, care must be used or the queen will be destroyed. If the colony has long been queenless, the bees will generally accept her at once, but in any event the queen should be caged for 24 hours in a queen-cage placed among the bees; if upon examination you find the bees quietly crawling over the cage, then you can release her ladyship and all will be right. On the other hand, should the bees be excited, piling up over and upon the cage, as if anxious to get inside, then you must not release the queen, but close up the hive and wait another day, when generally quiet, then the queen can be released without danger. Sometimes it will be necessary to keep the queen caged for nearly a week, but such are exceptional cases.

When the queen is released, open the hive again in about 15 minutes, and if you find "her majesty" crawling over the combs quietly, the bees following about her and making way for her, you can generally conclude that she is all right. Then close up the hive, and do not open it again for four or five days.

Denver,⊙ Colo.

For the American Bee Journal.

Foundation in Sections—Wintering.

T. M. COLEMAN.

I am surprised that there should be any discussion in regard to thick or brood foundation in sections. I would not eat comb honey at all with such foundation all through it; and a great many who buy, object to such starters, however small, and I do not blame them. I have experimented with the various ways in common use, and I find that nothing answers the purpose (to suit me), and secure straight combs, so well as the thinnest foundation I can get, cut into strips three-fourths of an inch in width, and then cut in pieces about 2 inches long on one side, and 1 inch or less on the other. Sometimes I use triangular pieces with about ½ of a square inch of foundation to the section; and they do very well in the main, but sometimes there will be crooked ones. These I use myself or sell to the neighbors, who do not care for it being a little out of shape.

My bees did very little until June 26, when linden bloom began, and it is still good, and will be to the end of this week, or longer, giving a splendid flow of over two weeks. The temperature of my cellars in the cold weather was often as low as 34°, and my bees wintered well. In the dryest cellar I wintered 12 colonies each winter, and lost none for two years; in the other cellar I lost 2 out of 24 the first winter, and 3 out of 38 the second. The temperature in it went down to freezing, a time or two. I intend to make it warmer next winter, if I can. Out-door wintering here generally fails.

Glendon,⊸ Iowa, July 7, 1887.

Plowman.

The Lesson Experience Teaches.

C. H. DIBBERN.

With the continued dry weather during May, our chances for securing a good honey crop this year, rapidly slipped away. Although the bees may have been managed on the most scientific principles, and everything may have been done that our best authorities and long experience could suggest, yet, without the nectar-secreting flowers and suitable weather all will prove unavailing. There is this satisfaction, however, that if we do our part faithfully, and we do not reap the success we had anticipated, we need not worry about it, but should lay it to causes over which we have no control.

Is there not a lesson to be learned in the present season of drouth and failure of the white clover? In times past, when but few colonies were kept, it did not make so much difference—usually the bees took care of themselves, and generally managed to get enough for their own support. Now, however, when many men, and women too, make this single branch of agriculture their exclusive business, and often keep many hundred colonies, it becomes a serious matter. The bees cannot gather honey if there are no flowers, or they fail to secrete nectar. They cannot produce something out of nothing. Unless they are helped by feeding to carry them over the succeeding winter, they must perish. Now the question is, cannot the bee-keeper guard against an occasional failure of a single crop like white clover? Must bee-keeping always remain the haphazard business that it has been in the past? When times are prosperous the bee-keepers are jolly, some even seem to feel so good that they almost give away their honey, and when there is a failure they are correspondingly blue and discouraged.

It seems to me that if it pays to keep bees at all, it will pay to keep them well, and if nature does not produce an abundance of honey-producing flowers, we should by all means in our power, increase the bloom. This leads to planting for honey, and unless this is done, bee-keeping must ever remain a rather hazardous business, when followed exclusively for a living.

In looking about for a plant for this purpose, it is a good idea to select that which is useful for other purposes as well. Alsike clover stands at the head of these, but as it blooms at the same time as white clover, and may occasionally fail, it is not well to depend on that alone. I have tried about all the honey-plants that have been recommended in late years, and have yet to find one equal to melilot or sweet clover It seems to be both winter and drouth proof. It blooms just as other blossoms begin to fail, and the quality of its honey is very fine. So confident am I that this crop will pay for the honey alone, that I have this spring sown three acres more, in addition to what I had before. Of course it will not bloom this year, but it will be appreciated next, even should honey then be abundant.

Milan,⊸ Ills.

☞ The Darke County Union Bee-Keepers' Society will hold their next meeting in the Opera Hall at Union City, Ind., on Friday, July 29, 1887.

J. A. Roe, *Sec.*

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

Local Convention Directory.

1887. *Time and place of Meeting.*

July 29.—Darke Co. Union, at Union City, Ind.
J. A. Roe, Sec., Union City, Ind.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Honey-Secretion—Southern Crop.—Chas. F. Muth, Cincinnati, ♀ O., on July 7, 1887, writes:

There will be but little honey produced in Ohio, Kentucky and Indiana. White clover blooms during the month of June in this part of the country, and is almost our sole resource for honey; but almost every night was cool from the beginning of June till about June 20. Experience has taught us that no honey is secreted in white clover during the daytime, when the mercury was down to 55° the previous night. It went down to 47° one morning about the middle of the month. Cold nights in June seem to have been the cause of the failure of our honey crop. I have reports from Southern bee-keepers, telling me that the crop in the South is a good one.

Building Combs between Stories.—Evan R. Styer, Morgantown,○ Pa., on June 30, 1887, says:

The Bee Journal is to me a very valuable paper. My bees are building combs between the upper and lower stories. What can I do to prevent it? They are all doing it. I have 13 good colonies.

Only Half a Crop.—L. D. Allen, Ovid,⊙ Mich., on July 9, 1887, says:

The basswood bloom has just ended, the bees doing their last work on it yesterday. It yielded well for one week. Clover yielded but very little honey. The crop here will not be more than half as much as it was last year.

Alfalfa as a Honey-Plant.—V. Devinny, Denver,⊙ Colo., on July 10, 1887, says:

Colorado is destined to become an immense honey-producing State, since the introduction and cultivation of alfalfa, or lucerne, as a bee-forage plant. Vast fields and whole farms are sown with it, for hay and pasture, and as it is continuously in bloom and rich in honey, the bees have an inexhaustible source to draw upon for supplies. The honey gathered from it is transparent and of fine flavor, and the wax is as white as snow.

Making a Good Living, etc.—W. Addenbrooke, North Prairie,○ Wis., on July 7, 1887, writes:

I wintered 130 colonies without the loss of one, disposed of 22 colonies, and the balance were in splendid condition when white clover began to blossom on June 4; but it only lasted a few days. We did not have a decent shower of rain this season until June 30, but now we have rain each day. The colonies were short of stores, they killed off drones, and pulled out drone brood over two weeks since. We have had good weather since July 3, and bees are doing fairly well now—making a good living, anyway. Our crops are very poor; wheat, barley and grass are not a quarter of a crop; but this rain will help oats, corn, potatoes and pasture, and will enable farmers to sow buckwheat. At this time last season I had over 4,000 pounds of surplus honey from 67 colonies, and had increased them to about 120 colonies. This season I have had only 13 swarms.

"Free" Honey, etc.—Mrs. L. Harrison, Peoria,⊙ Ills., on July 13, 1887, says:

When I am selling honey among the Germans, they invariably ask me, "Is it free, or in the comb?" How would "free" honey do, in lieu of extracted? Who has time to explain to every customer that their honey is not an "extract?" Bees have barely made a living so far, in this locality; I have had only 3 swarms from 100 colonies, and these have to be fed to prevent starvation.

Poor Prospects for Fall Honey.—D. R. Rosbrough, Casey,○→ Ills., on July 8, 1887, says:

I lost one-third of my bees in wintering, and I have had no swarms and no surplus. There are 300 colonies of bees in this township, which is six miles square. As I was assessor I was very careful to note all the bees in the township. About 150 colonies are owned by farmers, who did not get any honey last year, and will not get anything this year. Bees are making a living, and a few of mine are working in the sections. It is very dry here, and the white clover is all dead. The prospects for fall honey are poor. It is so dry that the buckwheat will not grow, and the fall honey crop will doubtless be a failure.

Metal Frame-Corner.—Geo. L. Transure, Easton,○→ Pa., on July 7, 1887, writes:

I have mailed you to-day a sample corner of comb-frame and piece of end-board which I have given one year's trial, and would not change back to the old style of rabbet on the end-board, and wooden rest at the end of the frame, for anything; as I consider this a great improvement. The advantages I claim for it are, that the bees never glue it fast, and I do not need any plyers to loosen and lift the frames. I take hold of the iron end to lift or move them, and they always have an exact bee-space between the frame and end-board; and when covered with enameled cloth, there is no chance of the bees getting out into the air-spaces, as the cloth lays better than on the rabbeted ends; and I am never troubled with propolis on the frames; for the division-boards I nail a piece of hoop-iron on top of each end. Some may object to the frames being too easily moved out of place while moving the hive, but I get over that by nailing a strip of wood on each side of the hive, just over the end-board, and have a strip of wood to fit tight over the irons with the ends under the strips at the sides.

[It is practically the same thing as the Novice tin-corners and metal rabbets, only that these are made of galvanized iron. The former have been used by some for a dozen years or more.—Ed.]

Getting very Little Honey.—A. D. Burtch, Stockbridge,○→ Wis., on July 9, 1887, writes:

Bees are getting very little honey here this year. I have 56 colonies, and they will not average over 10 pounds each. We got no white clover honey, and linden lasted but a short time. I have plenty of bees, but nothing for them to gather.

Short Honey Crop.—J. F. McMillan, Healey,δ Ills., on July 13, 1887, writes:

This is a poor season for bees and honey. We had bad weather in the spring, and dry weather during white clover bloom, so the crop is short. I have taken about 75 pounds of comb honey so far from 21 colonies; last season I had about 400 pounds. The farmers have cultivated their corn so well that there will be nothing for the bees to get in the field. There is a good deal of red clover here; if it rains so as to get honey from it, we may have some this fall. We need rain very badly.

Bees and Clover, etc.—H. M. Cates, Shideler,○→ Ind., on July 12, 1887, writes:

So far this has not been a very good honey season. Bees got just enough honey from white clover to build up strong, yet I have had no increase. I have heard of but few swarms anywhere. My bees made a rush for the honey-boxes when the basswood opened, and for 15 or 20 days they did very well; but for the last five days they have been fairly swarming on a a field of big English clover. The dry weather has had a tendency to make the bloom small, so the bees can get its sweets. This is the second time I have seen bees working on this kind of clover, and I believe as a general thing the bloom of this clover is smaller than the small red clover; but there is no clover that will compare with Alsike. I shall sow 20 acres of it in the spring. I have tried sweet clover, but it freezes out too badly for me; I cannot get a good stand of it. Should we have a good rain soon, white clover may spring up again, which will bring out some late swarms, which, if hived on foundation or old combs (of which I have plenty), they will do very well for the next thirty days. This is just such a season as we had in 1880, and the spring of 1881 found just 9 colonies living in this township. The outlook here is good for better prices on honey, unless it is supplied from some other county. One bee-keeper told me that from 60 colonies he would not get sufficient surplus for his own use.

Linden Honey-Flow Light, etc.—R. F. Holtermann, Brantford, Ont., on July 11, 1887, says:

Bees are doing rather poorly. The linden honey-flow is very light. I got 45 pounds per colony from clover; from linden, so far, 20 to 25 pounds, and it is not over yet. Many reports are poorer.

Names for Extracted Honey.—G. E. T. Kyber, Green Bay,⟜ Wis., on July 13, 1887, writes:

There are objections made to the name "extracted." for honey taken from the comb; I would suggest to name it "uncombed" honey; and, verily, some from Chicago, in groceries here, looks (figuratively) very "uncombed." But I presume objections will be made to this name, although it could be more rationally applied to honey than "unmarried" to a person not married, unless divorced. We may also name it "divorced" honey, because separated from the comb. If this is also objectionable, I will give up, unless we name it "separated" honey.

Our honey season is over, and the result is *nil*. The cold and disagreeable weather in April decimated the few colonies left after the destructive winter, and the drouth finished the matter by leaving to the apiarist a small lot of strong colonies, and the prospect of feeding the same for next winter.

Hot Weather, etc.—A. W. Fisk, Bushnell,⊸ Ills., July 13, 1887, writes:

Bees in this locality are doing nothing. The dry weather set in so early that we had very few swarms, and no surplus as yet, with very poor prospects for any; for it gets hotter and more dry daily. Yesterday was the hottest day of the season, the mercury being reported here in the shade at 110° and 112° above zero. Bees wintered first-rate in this locality, and filled up their hives nicely with brood and bees in the early spring, and I expected heavy swarming; but such was not the case, and, as for a honey crop, there is no show, for the white clover is nearly all dried up, which is our principal honey source. However, we have excellent crops of hay and grain, and good weather to harvest them. The corn crop never looked better than now, and if we have rain soon, we will have a booming crop. But how different was last year's honey flow. Last season at this time our city was flooded with honey, nice comb honey being sold here at 10 cents, and extracted at 5 cents per pound. Last year every bee-keeper had honey to sell, but this year they have none. Such is the "bitter and sweet" of bee-keeping.

Honey Crop Light.—J. W. Bayard, Athens,⟜ O., on July 9, 1887, says:

Our bees gathered no surplus until the latter part of June, and now it is too wet; so our honey crop will be very light in this part of Ohio.

Honey Season in Canada.—Thomas Stokes, Minesing, Ont., on July 8, 1887, writes:

Bees are doing well, with prospects of an abundant yield. On June 6 I had my first swarm, the earliest in this locality. Over half of my colonies have swarmed. Haying is just commencing, Alsike being largely grown here. Pastures and roads are covered with white clover. We have had fine, heavy rains about every week. Basswood promises well, if the buds are any criterion to go by. The honey season will last nearly two months yet.

Honey, but no Swarms.—E. C. Jordan, of Jordan Springs,♂ Va., on July 13, 1887, writes:

In this section of the country the bees have gathered "dead loads" of honey, but they have swarmed but very little.

Doing a World of Good.—Geo. E. Hilton, Fremont,⊸ Mich., on July 14, 1887, writes:

It is with pleasure that I send $1.25 to retain my membership in the "Union." It is doing a world of good, and I hope to see its membership double this year. The honey crop here will not be over one-third. White clover was a failure for the first time in my ten years of bee-keeping. Basswood was cut short on account of the severe drouth, and we cannot depend on the fall blossoms for surplus. My worst fears are, that white clover is killed to such an extent that it will fail next season, but I hope the fall rains will restore it.

Crop Almost a Failure.—H. R. Boardman, East Townsend,♂ O., on July 12, 1887, says:

The honey crop is almost an entire failure in this part of the country. White clover failed, hence we got no honey from that source. A little was obtained from basswood—and that is all.

No White Clover Honey, etc.—E. J. Fuller, Beaver Centre,⊸ Pa., on July 9, 1887, says:

I put into winter quarters 23 colonies of bees—21 good ones and 2 nuclei. They were wintered in an out-door cellar, the temperature ranging from 38° to 41°. All came through the winter in good condition except the 2 nuclei, which left 21 colonies to commence the season with. White clover did not yield any honey to speak of, for out of about 600 sections put on, I have not taken 50 pounds of capped honey. There was enough honey to keep them swarming, and I have got a nice increase of 32 colonies, making 53 in all. I will have to look to fall bloom for my surplus crop.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—We quote: Extracted, 5@7c., according to quality and package. New honey in 1-lb sections was sold for 15c. per lb. Only 2-lb. sections of honey are now on the market.

BEESWAX.—22c. R. A. BURNETT.
July 7. 161 South Water St.

DETROIT.

HONEY.—Best white comb, 11@12c. Market is nearly bare, awaiting the new crop.

BEESWAX.—23@24c.
June 10. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5@5½c.; light amber to amber, 4½@5c. Comb, 2-lb. white to extra white, 12@14c.; the same in 1-lb. sections, 15c.; light amber to amber 2-lbs., 9@12c.: 1-lbs. of the same, 10@12c.

BEESWAX.—22c.
July 9. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 8@10c. Strained, in barrels, 3½@4c. Extra fancy, ½ more than foregoing prices. Extracted, 4¼@4¾c. Market dull.

BEESWAX.—Steady at 21c. for prime.
July 11. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber 3¾@4½c. Market quiet.

BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 12@12½c.; choice 2-lbs., 10@11c.; dark not wanted, and imperfect slow. Extracted, finest white in kegs, 6½@7c.; in white in kegs and barrels, 6@6½c.; dark, 4 to 4½c.; amber, in barrels, 4½@5c. Demand limited and supply small.

BEESWAX.—25c.
June 10. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts,; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way.

BEESWAX.—17@20c.
July 14. CLEMONS, CLOON & CO., cor 4th & Walnut

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales very light. Fancy white extracted in good demand, but supply limited.

BEESWAX.—26 cts. per lb.
July 11. BLAKE & RIPLEY, 57 Chatham Street.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

Enameled Cloth for covering frames. price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours. to get subscribers.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Subscriptions are coming in at a fair rate, but we want more. The AMERICAN BEE JOURNAL is the pioneer bee-paper of America, and is fully entitled to the active support of every progressive apiarist, for it works constantly and faithfully for the best interests of the pursuit. We therefore confidently request all our old and new readers to use their influence to double our subscription list during the coming autumn. Reader, will you please send us a new subscription with your renewal, or before that time? A good weekly at one dollar a year is surely cheap enough to command patronage.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 **cents** per lb. Orders solicited.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Advertisements.

TESTED QUEENS, $1.—Bees, Supplies, etc. See Foster's adv't. on page 432.
28Atf

BY Return Mail.—Italian Queens, Tested, $1; Untested. 60c. Bees per lb., 50c.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

WANTED to Buy—500 pounds of New White Clover HONEY, in 1-lb. sections. References furnished. Address,
C. H. OSBORN, Jr.,
Cor. 5th Ave. & Hunter St., **Columbus, O.**

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin,Hartford,N.Y.
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QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

BY RETURN MAIL.

ADEL, IOWA.
H. ALLEY.—I must say that the two Queens you sent me, are the largest and finest Queens I have ever received. They are simply perfection.
DR. W. R. CULLISON.

Warranted, $1; Selected, $1.25; Tested, $1.50

HENRY ALLEY,
29Atf WENHAM, MASS.

Beautiful Italian Queens.

J. F. **WOOD** wishes to inform his former friends and patrons, that he is now filling orders promptly for those GOLDEN ITALIAN QUEENS that have given satisfaction to every customer for the past two seasons—at the low price of $8.00 per doz; single Queen, 75 cts. *I use no lamp-nursery.*
☞ Do not fail to send for descriptive Circular; if you have not my 1886 Circular, send for that too.
JAMES F. WOOD,
29Dtf North Prescott, Mass.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

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Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

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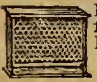
More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25**. Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation



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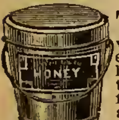
NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

UNTESTED Italian Queens.—Single Queen, 65 cts.; 5 for $3.00; 12 for $6.50. **BEES** per lb., same price as Queens.
26Atf **I. R. GOOD,** Nappanee, Ind.

"Boss" One-Piece Sections,

MANUFACTURED BY

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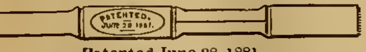

PATENTED. JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

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Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled: **THE PRODUCTION OF COMB HONEY.** In which, from the time of building up colonies in the spring, to the removal of the honey from the hives, the problem of securing the most first-class honey with the least expenditure of capital and labor, is clearly explained; the author carefully outlining the system that he believes to be best, and giving reasons for his belief. ☞ Price of the Book, **25 cents.** Stamps taken—either U. S. or Canadian.

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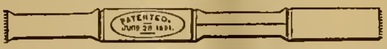

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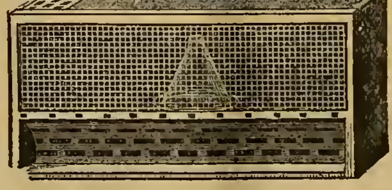

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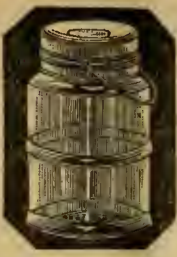

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Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

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Daughter of above Cyprian Queen, mated in my apiary of Carniolans—Untested, $1.50; 2 just ready.

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THE finest **WHITE POPLAR** SECTIONS and the best **PERFORATED ZINC** ever offered to bee-keepers. Our new machine makes 50,000 perforations in a day. We also claim the finest strain of BEES for comb honey—the Syrio-Albinos. Price-lists of **QUEENS** and Supplies free. Samples of sections and zinc, three cents.

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We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. July 27, 1887. No. 30.

Mr. John Burch, who commenced the spring with 93 colonies of bees, died on April 13, 1887, of spinal fever, at the age of 26 years. His wife keeps the bees now.

◆

The Indiana State Fair will be held at Indianapolis on Sept. 19 to 24, 1887. We acknowledge the receipt of a beautiful lithograth of "Ruth gleaning in the fields of Boaz," issued by the State Agricultural Society, announcing the date of the Fair.

◆

"The Book of Life; or the Nature and Destiny of Man," by Dr. Sivartha, 420 pages, profusely illustrated, is on our desk. During August it will be given away to every subscriber to *Health and Home*, a monthly periodical published at $1 a year.

◆

Todd's Famous Honey-Ice-Cream is what they call it down in Philadelphia. Why not have such a Honey Depot in every city of America? The only reason that can be given is that our honey-men are "sleeping while on duty!" Mr. Todd is one of the wide-awake men of the period. He *believes* in honey; he *sells* honey; he *uses* honey in making ice-cream; he *creates a demand* for it by advertising it as "Todd's Famous Honey-Ice-Cream." Strong men *buy* it; delicate ladies *sigh* for it; the children *cry* for it; and all say "Oh! my! what a delicious morsel it is!" Would that we had an Arthur Todd in every city of America!

◆

Mr. C. C. Richardson, of Tipton, Ind., who was sued for maintaining an alleged nuisance on his lot, in having an apiary there, *died* on June 11, 1887. The suit was defended by the Union, and he was allowed to keep his bees in peace since the trial last November—but alas for human ambition and human life, he did not live long enough to enjoy much of the results of their industry. The pursuit was defended, and its enemies defeated in that case just the same. He rests in peace, having gone to the place—

"Where the wicked cease from troubling,
And the weary are at rest."

The Bee-Keepers' Magazine for July contains the following relative to our editorial on "kissing bees," on page 371:

> The AMERICAN BEE JOURNAL, as might be expected, takes us to task for our comment on one of its editorials of recent issue, relating to Mrs. Thomas. We, perhaps, overstepped our bounds in assigning a motive for editor Newman's remarks relative to Mrs. Thomas, and we here beg his pardon if we have misjudged him, and can assure him that no jealousy actuated us in making the remarks. But we reiterate that Mrs. Thomas' statements can be relied upon as the truth; editor Nowman to the contrary, notwithstanding. Mr. Newman has done a good work in exposing the "Wiley" lies, but he "overreached" in the case of Mrs. Thomas.

The apology is cheerfully accepted, and as to the statements of the lady in question, we are quite willing to leave it to our readers to decide for themselves as to the "overreaching." We fully believe the point we made is invulnerable, but it makes no difference as between the AMERICAN BEE JOURNAL and the *Bee-Keepers' Magazine*—they will work together for the good of the pursuit.

◆

The History of Bees in America is thus stated by Mr. T. P. Johnson, in the Ohio *Poultry Journal*:

> When the continent of America was discovered there were no honey-bees here. The country being covered with bloom of all kinds, and no bees to gather the nectar, it was thought that this would be a good country for honey-bees. So a German conceived the idea of importing a colony of bees from Germany. In 1628 he started across the ocean with 2 colonies of bees, but lost both of them on the way.
>
> The next year he started three more colonies, and succeeded in getting two of them across alive. They appeared to do well, and soon began to swarm; and a great many swarms went to the woods and settled in hollow trees.

◆

The 25th Annual Report of the Michigan State Board of Agriculture is on our desk. It contains 318 pages, and makes a good showing for the work accomplished at the Agricultural College. Prof. Cook, in his report, makes this statement:

> We have made no experiments in the apiary the past season, except to try the "New Heddon Hive," and the solar wax-extractor, with both of which we are well pleased. We have increased our bees from 12 to 39 colonies, and have sold quite an amount of honey. The season has proven that drouth alone does not surely prevent the secretion of nectar by the flowers. We have now so large an apiary that it is utterly impossible to manage it well with no other than student labor. Several colonies of bees have been sold during the year.

◆

In Reference to the meeting of the convention this fall in Chicago, Prof. Cook writes thus:

> I fear I cannot attend a meeting in September or October. I could in November, on the second week of the Fat Stock Show. I think November the best month of all. Work is done then. Does it not strike you so?

Yes; we certainly do think it the best time to hold a convention, for the railroads will all run excursion trains during the second week of the Fat Stock Show. As bee-keepers have but little honey to sell, they will all feel like "saving the pennies," and this will give them a good chance. The work in the apiary can easily be arranged accordingly.

Is the Bee-Sting Used for any other purpose than as a weapon of defense? M. H. Tweed, of Allegheny City, Pa., sends us the following, clipped from the Pittsburg *Chronicle* of June 7:

> At a meeting of the Physiological Society of Berlin, it was given out as a fact, that, when the bee has filled his cell, and has completed the lid, a drop of formic acid, obtained from the poison-bag connected with the sting, is added to the honey by perforating the lid with the sting. This formic acid preserves honey and every other sugar solution from fermentation. Most of the insects that have a stinging apparatus similar to that of bees, are collectors and storers of honey, so that the sting has a double function—it is a weapon and a pickle.

We are not much acquainted with the Physiological Society of Berlin, but it seems to me they had better be sure their facts are facts before they give them out. The item above will probably have some such a run as did Prof. Wiley's "scientific pleasantry;" but until somebody can give us some positive facts, gleaned from direct observation, we shall refuse to believe that honey needs to be pickled, and that the bees use their stings to pickle it before it will keep without fermentation in the hive.—*Gleanings in Bee-Culture.*

◆

Died, on July 8, 1887, at Napa, Calif., aged 54 years, Mr. Joseph Enas, who was a correspondent of the AMERICAN BEE JOURNAL, and well-known to many of our readers as a progressive and successful apiarist.

◆

Mr. Aspinwall, editor of the *Bee-Keepers' Magazine*, has had serious afflictions in his family for a few months, which we are sorry to be apprised of. The *Magazine* for July says:

> For three months his wife has been very ill, and as he has personally nursed her by night as well as day, it has unfitted him for the arduous duties of the busy season, and caused delays which we much regret, but which, under the circumstances, were hard to prevent. Absence from home, with his wife during the past month particularly, will cause this number of the *Magazine* to appear very late. We expect that, through the kind providence of God, she will shortly be well again, and the August number appear on time.

The BEE JOURNAL condoles with Brn. Aspinwall in his affliction, and hopes for the speedy recovery of his wife, and the restoration of punctuality in the *Magazine*.

◆

John D. Van Gorden, 69 years of age, in Pike County, Pa., was recently killed by a bee-sting on the wrist. A few minutes after he was stung the pain became so intense that he started for the house. As he entered the door he groaned, "Oh, I am going to die," and immediately expired. Of course his system was very much "out of order," and the machinery was in the right condition to stop from the least provocation.

◆

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Fall Crop—Feeding Granulated Honey.

Query 447.—In colonies of bees run for extracted honey the combs are filled with sugar or granulated honey. 1. Where a fall crop is generally good, would it be wise to rear queens and build up nuclei into full colonies to gather the fall crop? 2. Will the granulated honey do to winter bees on?—Pineville, N. C.

Yes.—DADANT & SON..

1. Yes, if you can get your colonies sufficiently strong in time. 2. It will do in a moist, warm climate, but not in a cold one.—J. P. H. BROWN.

1. I do not clearly understand your meaning. 2. Granulated honey is not safe to winter bees on in Michigan, but it may be in North Carolina, however.—JAMES HEDDON.

Yes, use up the sugar and granulated honey in getting bees for the fall crop.—G. M. DOOLITTLE.

1. The plan is good, if you can get the colonies strong enough in time. 2. I am afraid the bees will waste much of the granulated honey.—C. C. MILLER.

1. I should suppose so, though one can hardly advise without more knowledge of the surroundings, etc. 2. I should suppose so, in North Carolina. I should prefer liquid honey in the North, where the bees are long confined to the hives.—A. J. COOK.

1. If you want to increase your bees it will be a good way to do it. 2. In my location bees winter all right on granulated honey. But what are you doing with sugar in the combs, when you have a "fall flow" of honey to fill up your hives for winter?—G. W. DEMAREE.

1. Where you have a good fall crop, get all the bees you can to gather it with profit. 2. Bees will winter on granulated honey, but well-capped liquid honey is better.—H. D. CUTTING.

1. If a fall crop is assured it should be prepared for; and if the number of workers can be increased as you suggest, without too great an expense, it may be advisable. 2. I have never used granulated stores for winter, and I do not know how it would answer.—W. Z. HUTCHINSON.

1. I have made my increase on the nucleus plan in the late summer for years, allowing the bees to gather what fall honey they could, and feeding the balance with honey or syrup. 2. In my experience, granulated honey is not safe to winter bees on. The best use to make of it is to utilize by building up swarms with it in the spring. It is as good as any food for that purpose.—J. E. POND.

1. Yes; if a fall crop of honey is reasonably expected, it will be well to prepare for it by building up nuclei into full colonies. 2. Granulated honey is not suitable food for wintering bees in the North; but it may do in North Carolina, where the rigors of winter are less.—THE EDITOR.

What Ailed the Bees?

Query 448.—I lost 7 out of 10 colonies the past winter. They were packed with 5 inches of shavings on the sides, the ends of the hives being double, made of ⅞-inch boards, with building paper between. The bottoms were double thickness with shavings between; the top 1¼ inches, bee-space, with wire-cloth, 3 inches of dry poplar shavings, and the balance of the top filled with straw, with three 1-inch holes in the top. The entrances were 5-16x6 inches, open, and the alighting-board leaned up, and a tight board-fence 4 feet high was on the east and west. Last year I increased my apiary from 4 colonies to 10, took 600 full one-pound sections of honey, and a multitude of partly-filled ones. Swarms were all out by June 10, and no honey was stored after July 10, caused by the drouth. Why did the bees die?—Grinnell, Iowa.

The data given is not of the proper character to enable one to say *why* the bees died.—W. Z. HUTCHINSON.

I suspect that they died because you did not put them in a cellar.—C. C. MILLER.

Not knowing the exact condition of the colonies, it is pretty hard to say. Probably by too few bees, and not sufficient stores.—J. P. H. BROWN.

If the bees did not starve, it was probably the weakness of the colonies that was the cause of their death. The fault may lie in something that you do not mention, or did not notice.—DADANT & SON.

It is a freak that they have quite often, and (excuse me) no one knows why. I am the most successful in cellar wintering.—G. M. DOOLITTLE.

I suppose that they had the bee-diarrhea, caused by eating pollen in continued confinement.—JAMES HEDDON.

Your method of packing was all right. It looks like a case of old, worn-out bees, that you put into winter quarters.—H. D. CUTTING.

If the bees did not stop breeding so early as to have none but old bees to begin the winter, and were not destroyed by disease, I could give you no clue to the trouble. I am of the opinion that bees only partially protected with packing are worse off than if not protected at all. In your climate 2 feet of shavings would not make the hives frost-proof. I doubt if such packing would exclude all frost in this more moderate climate.—G. W. DEMAREE.

I do not think that ordinary wood-shavings are suitable to pack bees with. As packed, the hives were little better than double-walled hives with air-space between the walls, and such hives do not protect much. Cold killed the bees, and the heat of the clusters mostly going out of the top of the hives. I am against free upward ventilation in out-door wintering. A thin, unpainted "under-cover," with chaff packing above it, allows moisture to pass off freely, but effectually retains the heat.—G. L. TINKER.

Possibly poor food; more probably long confinement with too great variation of temperature. It is just such experiences that make me the hearty advocate of the cellar, where we can surely control the temperature. Give the bees good food and a uniform temperature from 40° to 45° Fahr., and they will winter safely every time. At least I think so.—A. J. COOK.

I do not know from the data given. You say nothing about the amount or position of the stores, or the quality. I have kept my bees on the summer stands in winter, in practically the same way as regards packing, and I have not lost a colony for over 16 years; except two that starved in March, 1885, when I was too ill to attend to them.—J. E. POND.

Probably it was a case of starvation or too long confinement, or both, perhaps.—THE EDITOR.

Simplicity Hives for Wintering.

Query 449.—Can bees be wintered in Simplicity hives with as good results as in any other kind of hive?—M. J. B., Pa.

Yes, in the cellar.—G. M. DOOLITTLE.

No, not in the regular single-walled Simplicity hive.—DADANT & SON.

I think so.—A. J. COOK.

Yes, with proper protection.—G. L. TINKER.

Yes, by protecting the hive either by packing or putting it into a cellar.—W. Z. HUTCHINSON.

I should as soon risk them as any other hive in a good cellar.—C. C. MILLER.

I think they can, if all the necessary conditions are observed.—J. P. H. BROWN.

I can see no reason why they cannot, if properly protected. J. E. Pond and others are very successful in wintering their bees in the so-called Simplicity hives.—G. W. DEMAREE.

Properly stored and packed I can see no reason why they will not winter as well as in any hive under like conditions.—H. D. CUTTING.

I have found that they do; but I think with a novice chaff hives would be preferable, as it requires some experience and labor to fix up a Simplicity hive all right.—J. E. POND.

Practically, yes. The style of the hive has very little to do with successful wintering. Experience has proven this, against all theories to the contrary.—JAMES HEDDON.

Why not? If properly protected on the summer stands, or if placed in cellars, after being properly prepared for winter, bees winter well in almost any kind of a hive.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near tne center of the State named; ♁ north of the center; ♀ south; ⊶ east; ⊷ west; and this ♂ northeast: ⟜ northwest: ⊸ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

"The Bees are Swarming."

EUGENE SECOR.

When the loud, clear notes of the dinner-horn
Are heard by the farmer while plowing corn,
With the day just begun on a fine June morn,
To him it is warning
That the bees are swarming,
And the interest is equal to a new baby born.

Old "Doll" is left standing alone in the row,
In the spot where the dinner-horn prompted the "whoa,"
And off to the house in a sweat he must go;
For where bees go a-frolicking,
Like bobolink's rollicking,
No time must be lost in delay, you know.

See them gamboling high in the air!
Circling, and crossing, and meeting up there
Like the dizzying maze of the dance, when fair
Young maidens go whirling,
And young men twirling,
Vainly seeking a "queen" in the ball-room's glare.

With horn, and tin-pan, and old brass-kettle,
The children are thundering with all their mettle,
The sole aim and object of this racket to settle
The frisky young swarm,
In the ancient form
Of drowning a noise by making more rattle.

While Charlie is gone to the woods for thyme,
Slyly watching the red squirrel nimbly climb,
Or listening to the mountain brook's sweet rhyme,
(Sung none the less sweet
For the boy's grimy feet,)
The dutiful bees are "charmed" in time.

Clustered at last in that old cherry-tree.
But naught of the "hiving" or bees do *I* see,
For thoughts of the time come back to me,
When I climbed in its branches,
And plucked its ripe bunches,
Careless, and thoughtless, and happy and free.

How old-time memories come trooping to mind!
Dearer and sweeter when looking behind,
And the thread of our life we seek to unwind,
While the playful bees,
In their swarming sprees,
Bring back the June days that were once so kind.

The leafy woods I see once more,
The robin and thrush I hear as of yore—
I smell the new hay as it falls by the mower;
In the clover the woodchuck,
By his hole near the big rock—
All these come back to me while the bees "roar."

Gently put the new swarm in their nice new home,
And disturb not the musings that unbidden come
Of the loved scenes and places from which we now roam:
For thoughts of life's June,
When the heart is in tune,
Are "sweeter than honey and the honey-comb."

Forest City, Iowa.

◆

For the American Bee Journal.

Selling Honey in Home Markets.

REV. M. MAHIN, D.D.

It is easy in a good season to produce a large quantity of honey either comb or "sincere." (It is said that "sincere" means, etymologically, "without wax"—from *sine* without, and *cera* wax, and was orignally used to signify pure honey; and if the etymology were generally understood it would be just the word we are looking for.) But the problem that confronts the honey-producer is, how to convert the honey into cash.

I am fully persuaded that the best plan is for the producer to create a home market. This can be more easily done than many imagine. In three places where I have lived, I have created a demand for "sincere" honey where none existed before. At New Castle, Ind., when I began bee-keeping, extracted honey was unknown in that locality. As I did not produce largely at first, I found a demand for all I could produce at from 20 to 30 cents per pound—the latter for extra basswood; and as the production increased, so did the demand. From 1877 to 1880 I was stationed in Logansport. When I went there, there was no market for honey of any kind, and extracted honey was entirely unknown. By putting the latter up in glass jars, and getting some of the grocerymen to handle it for me, I soon built up a trade that took all I could produce—about 1,500 pounds per year. In Huntington, where I spent the next three years, the same things happened. Each package had on it a neat label, with my name, and a guaranty of the purity of the honey. All this was done without interfering with my pastoral duties. I did not then produce any comb honey.

If one has a horse and spring wagon it is an excellent plan to take honey to the homes of the people. Many will buy it at their own doors, of one they know, who would not buy anywhere else. And it will pay to have small packages of both kinds to give to such as are not disposed to buy. Only this must not be done too often. When people get a taste of a really good thing, they will be pretty sure to want more of it, and those to whom a little is given to-day, will be likely to buy next time. Years ago, when I had the help of a son, a young man, I found the plan of carrying honey to the homes of the people a great success.

The greatest foe to the honey market, not excepting even the "Wiley lie," is not over production, but the demoralization of the market by small producers. They have a little honey to sell, and not knowing what the price ought to be, or having so little that it is not worth the trouble of marketing, they sell it for less than it is worth. And of course those who learn of these sales will not give more than the price at which these small, and, perhaps, inferior lots, were sold for.

I am fully persuaded that more honey would be bought and used if the price could be steadily maintained at figures that would give the apiarist a fair living profit, than is bought and used at the present low and irregular prices. When prices are fluctuating, many will not buy at all, unless they are sure that they are paying the lowest market price.

It is very important that the purity of the honey offered for sale, whether in the comb or out of it, shall be above suspicion. Every body ought to know that adulterated comb honey produced by feeding the bees sugar syrup, or some other liquid sweet—the only way in which it can be adulterated—cannot be produced at a profit; and if it could be, it is to the interest of every bee-keeper to offer none but what is absolutely pure.

As to extracted honey: I am not aware that a pound that was not pure has ever been offered for sale by the producer. The adulteration has taken place in the hands of dealers, who were not producers. But everybody does not know this.

A honey-producer should have a reputation for honesty that will place him above suspicion, and be a guaranty that none but pure honey will go out of his hands. If he sells extracted honey, it will help his market to invite the public to witness the process of extracting. Let the people see the combs taken out of the hives, the honey thrown out, and the combs put back again. Witnessing these operations will be more convincing than any amount of testimony and argument. And it would not be a bad plan to invite the editors of the local papers to witness the process of extracting, etc., and to make them presents of enough honey to put them, and their wives and children in an excellent humor.

As to price, the question is not easily settled. First-class comb honey ought to retail at not less than 25 cents per pound, and first-class "sincere" at not less than 15 cents. But what ought to be and what is, are often quite different things. A pound of the best comb honey is worth as much as a pound of the best creamery butter; and the latter cannot be had for less than 28 cents. A pound of good, fresh extracted honey is worth as much as a pound of comb honey. For my own use I would prefer it. But as it can be produced so much more abundantly and cheaply, we can afford to sell it for less.

I think that the use of comb foundation in the sections has had some adverse influence on the honey market, and I have ceased to use more than good starters. When I first began to use it, I filled the sections as full as possible; but I found it difficult to prevent the foundation from warping and making crooked combs. With only starters I get straighter combs, and avoid the hard septum that is generally found when full sheets are used. I do not use separators.

Bluffton, ♂ Ind.

◆

For the American Bee Journal.

Successful Wintering of Bees.

W. J. CULLINAN.

Without any egotism or attempt at self-aggrandizement, I presume I may ask to be placed upon the somewhat limited list of those who have succeeded in wintering their bees without loss.

As some may remember who read my article last fall, I was preparing my bees for out-door wintering, and the first step taken in that direction was to place the bees upon from four to six Langstroth frames, closing them up with a padded division-board. Over the tops of the frames and near the centre were placed three or four little sticks about ½ an inch in thickness, and over these a piece of burlap sacking and two thicknesses of old cotton quilt, covered with one layer of shingles, a plain honey-board or anything that came to hand, and over all were placed the lids snug and close. This operation was performed in the extracting-room, where the bees were found much more docile, and the hives replaced upon their summer stands.

In going through the colonies the matter of stores was looked after, and it was ascertained that at that date (Nov. 1) each hive contained from 15 to 25 pounds of well-ripened honey, most of which was fall honey, and gathered principally from heart's-ease and Spanish-needle. No effort was made to deprive the bees of pollen, and the combs of the different colonies contained more or less of that baneful article; none were without it, while some had a bountiful supply.

Now, after due and careful deliberation, and a somewhat studious review of the experiences of others in both in and out-door wintering, I concluded to "pick them up, hives, entrances and all, and place them in the cellar," *a la* Heddon. So a bench 12x1½ feet, and raised to 2 feet in height, was placed on one side of the cellar, and on this were placed the hives two tiers deep, with lids left on and entrances open, and facing outward from the wall; but no rims were placed under the hives, only one hive was raised from the bottom-board, and that not until the middle of winter, and then only about ¼ of an inch in front. The entrances to the hives were 9x⅜ inches.

The cellar is 12x18x7 feet, and in one corner I placed a small heating-stove, the pipe connecting with that of the cook-stove above, the cellar being under the kitchen.

An inside door opens into the cellar from a room in which fire was kept going all winter, and it has double doors opening into it from the outside; these doors were used only in mild weather, while the inside door was used in cold weather.

A thermometer, kept hanging from the ceiling, registered in mild weather from 40° to 50° Fahr.; but in freezing weather, of which we had a pretty liberal share last winter in this region, had no artificial heat been employed, it would have fallen to or below the freezing point. But at such times a slow fire was kept going in the stove, and the temperature of the cellar kept as nearly as practicable at from 42° to 45° Fahr.—frequently running as low as 40°, and as high as 50°. In cold weather the doors were kept closed, and no ventilation was provided, except what these closed doors and the stove afforded. After Feb. 1, the temperature was kept at from 45° to 50°.

On Feb. 28 I took the 16 colonies out of the cellar for examination, and to give them a flight, returning them the next evening. Upon examining a number, I found that the amount of honey consumed was scarcely perceivable, while a brighter, healthier, happier lot of bees would have been hard to find. Not the slightest sign of diarrhea or disease of any kind was present.

On April 2 I placed them on the summer stands to stay, and they "boomed right along," casting the first swarm on May 20, which was very early for this locality. I was not troubled in the least with "spring dwindling" in my apiary, which was due, I think, to the fact that they were not taken out of the cellar until settled warm weather. I did not feed an ounce of anything to stimulate brood-rearing, and yet on May 1 most of the colonies had eight frames solidly filled with brood.

I believe that bees can be wintered as successfully as horses or cattle, if we but learn the necessary conditions, and then set about it with a will to secure them. A little effort rightly directed will accomplish wonders, "sure enough;" and I know of no line of human industry where persistent and well-directed endeavor will be more lavishly rewarded than in apiculture—and in no branch of this noble science does it apply with stronger emphasis than in providing a comfortable winter home for our little friend—the honey bee; which certainly ranks as the "noblest and the best" of God's insect creation. In my mind, a properly kept cellar is that "comfortable home."

Mt. Sterling, Ills.

For the American Bee Journal.

Bare-Headed Bees, Foul Brood, etc.

H. E. HILL.

In Mr. Hoyle's article on page 393, in reference to unsealed brood in the pupa state, he says: "I am likely to have no little opposition on this particular point, if I call it a symptom of foul brood; I call it that, nevertheless."

He further asserts that it is a positive indication of the disease. While I am sure I have never seen a case of foul brood, to see nice, oblong, evenly laid patches of brood in the last stages, unsealed, is not a rare occurrence. For this we have adopted the somewhat comical, but appropriate name suggested, I think, by Dr. Miller, viz: "bare-headed bees."

I am inclined to think, although my experience is very limited, that it is more prevalent in the South than farther north. I found it, however, to be the case in Cuba compared with Ontario and this State. My attention was first drawn to the fact while transferring a number of colonies from hollow logs into frame hives, in Cuba, as my assistant used to amuse himself by holding the combs above his head (at a time when robbers were plenty), and watch the unsealed brood drop forward until the surface of the comb was a complete mass of heads, prevented from falling out by the "wire edge" against which the thorax rested.

It is a strange fact that after these bees were transferred, the colonies that contained the "bare-headed" brood were without exception remarkable for their vigorous working-qualities. While I do not doubt that Mr. Hoyle "never knew a bee to hatch from such a cell, that was of any value," I am quite sure that he "never knew" they were *not* of any value, either.

In Mr. A. J. King's essay read at Indianapolis, last October, on this subject, he says: "Foul brood is not 'indigenous' in Cuba, there not being a case on record in all the native apiaries." On making numerous inquiries in nearly all parts of the island I found this to be the case, as not one had lost bees, or heard of bees being lost by such a disease; and as this is in a land where apiaries of from a dozen to 500, or even 1,500 colonies, are thickly scattered over the country, we may safely rely upon Mr. King's statements, as not being without foundation. For, with bees kept at nearly every house in the country; hollow logs through the fields and along the highways containing bees, and the countless numbers as they exist in the mountains, in the side of a bank, beneath the trunk of an uprooted tree, or the shelter of a projecting rock—one would suppose that if "foul brood" was to gain foothold in Cuba, every bee-keeper from Cape Maysi to San Antonio would know something of it.

Again, if "foul brood" is unknown there, and it has no connection with "bare-headed" brood, how came the germ of the disease in the Cuban honey which Mr. Pond says was the cause of his loss?

After quoting the following from Mr. Hoyle's letter: "I have known for nearly two years that old bees, as well as the larvæ, would be diseased," Mr. Pond says: "Now my experience is just the reverse of this. In my own apiary I have known a diseased larva to emerge from its cell, or a mature bee to show any sign whatever of that disease; and from the very name given the disease cannot affect mature bees. If it does, it is of course wrongly named." Further on he says, with reference to Mr. Hoyle's statements: "And while perhaps he may be correct, and all the others, including Mr. Frank Cheshire (who certainly has given the subject more attention scientifically than any other to my knowledge), wholly wrong, I still cannot believe him right without some little proof."

The facts and truth, and "proof" of the same are just what we *do* want; but it seems to me that while Mr. Pond is preaching "Cheshire," he is further from that gentleman's ideas than is Mr. Hoyle, unless Mr. Cheshire has advanced some of his ideas privately, or otherwise, that I have not seen, which is quite possible. However, the following, which I quote, is from Mr. Cheshire's pen, having reference to an examination to which a queen, taken from an infected hive, was subjected a short time after his article was read before the British Bee-Keepers' Association in July, 1884. He says:

"All will, I hope, forgive my esteeming myself fortunate in having thus been able to make out the only points I had to leave undetermined on the 25th of last July. Then I had found the disease in young larvæ and those fully fed, in chrysalids in all stages, in drones, in workers just gnawing out of the cell, in young nurses and old, worn-out bees, and now in a queen and eggs unlaid. Bacillus alvei is then a disease affecting all and every condition of bee-hood. Can it continue to be called foul brood? To say the queen is suffering from foul brood would be as illogical and ridiculous as talking of toothache in the liver, or rheumatism in a wooden leg." Does he not?

Titusville,⊸ Pa.

Prairie Farmer.

The Use of Division-Boards.

MRS. L. HARRISON.

I have never been able to procure division-boards exactly to my liking; I have a few made after the directions given by Mr. Langstroth in his treatise on the "Hive and Honey-bee," with the ends beveled parallel with each other, for easy adjustment; but they did not prove so in my hands. When the bees had glued them to the hive with propolis, it was very difficult to get them out. I now prefer to cut them square on the ends, and a full quarter of an inch short, so as to allow tacking on two or three thicknesses of woolen cloth, "lists" or felt, so that when they are set in their place in the hive, they will slip in or out easily, and yet be nearly air-tight.

The division-board is an important factor in the apiary, especially in the spring. If you have weak colonies, with only bees enough to cover a couple of combs, adjust the division-boards so as to leave a couple of frames in the centre of the hive; take out the remainder of the frames and brush off the bees into the hive; spread a canvas sheet over the top of the frames, and put a chaff cushion or a sack of hay in the top hive or cap, thus confining the bees to a small space, retaining the animal heat, and enabling the queen and her subjects to rear brood and build up the colony.

By the use of the division-boards keep all colonies strong as far as they go in the spring, and a colony that can keep two combs full of brood and covered with bees is a perfect colony, to all intents and purposes. Such a colony will store as much honey, according to their numbers, as a larger one, and will send double the number of bees into the field that they would if scattered over five or six combs. This economizing all the animal heat is not mere "moonshine," but can be proved any day, at any time in May or June.

Take one of these small colonies at night, remove the division-board, and leave the two frames of brood and bees in the centre of the hive, and the next day nearly all the bees will remain at home, in order to keep up the necessary temperature. Place them back at night as before, adjust the division-board, and the following day they are ready to go to work again. When these two combs become crowded with bees, put in an empty comb or frame to fill between them. As soon as these combs are full of brood and crowded with bees, remove the division-board and insert another comb in the centre; keep on in like manner until the hive is full.

Division-boards are indispensable in swarming time, both for the rearing of queens and also for the hiving of swarms. After a natural swarm has been hived for a couple of days, I open its hive and find that comb has been started in four or five frames; these I move to one side of the hive, and a division-board is placed next. This throws the whole strength of the colony on these frames, and they will generally fill them with nice, straight worker-comb.

I ascertained by experiment, several years since, that when bees are confined to a small space, they invariably build worker-comb. If the flow of honey is abundant, and the bees have a large space, in the rush to occupy it they will sometimes build one-third drone-comb, as they can build this faster, and it holds more honey to a cell. In the spring following, the queen will lay in these drone-cells, and an army of "tramps" will be produced, which add nothing to the wealth of the community, are supported by the workers, and all that they are good for is to fill space.

Peoria,⊙ Ills.

For the American Bee Journal.

Wavy and Crooked Combs.

W. Z. HUTCHINSON.

Before replying to the arguments of Mr. Stiles, on page 409, I wish to thank him for the courtesy and fairness exhibited in his criticisms. Such reviews are more than welcome.

I have not a particle of doubt that Mr. Stiles has wavy and crooked combs when he attempts to dispense with full sheets of foundation in the brood-nest when hiving swarms; and in return I trust that he will believe me when I say that I have no trouble whatever from this source. Why he does, and I do not, I am unable to say; but there certainly must be a reason. Mr. Heddon, on page 407, says that starters 2 inches wide will sometimes cause a warp or curve at the *lower* edge of the comb. I have never used them more than ¾ of an inch in width, usually about ½ inch.

I have also found that "thin" foundation will not answer for starters. I used quite a lot of very thin foundation for this purpose the present season, and in many instances, usually when the swarm was large, the bees either pulled or gnawed off the foundation, and *then* crooked combs were the result; but with Given foundation of ordinary weight, I have had no trouble from crooked or wavy combs, they being so straight and true that it would require a critical examination to decide whether or not they were natural combs or those built from foundation. They certainly pleased me, and were I purchasing bees, I would not make a penny's difference in the price between a colony with such combs or those having combs made from foundation. If I could not secure perfect combs by the methods I follow, I should most assuredly practice some other system.

As Mr. Stiles is the only one who has reported difficulty in the securing of perfect combs, it seems as though there must be something exceptional in either his fixtures, methods, locality, or something. To illustrate: I have never had any trouble from pollen being stored in the sections, and had any one who had in contemplation the adoption of my methods, asked if there were no danger of trouble from this source, I should have confidently asserted there was not. A few weeks ago I received a letter from Mr. Dwight Furness, saying that he had had no trouble from this source until he began hiving swarms with starters only in the frames, and placing over them sections filled with partly drawn foundation, but *containing no honey.* I immediately hived several swarms in exactly this manner. I did not doubt the truthfulness of my correspondent, but we all like to see these things with our own eyes. Well, I *did* see the pollen with my own eyes; there was quite a bit of it, and it was in the sections too. It required only a few experiments to satisfy me. My bees had never swarmed until they were at work in the sections, thus the sections that were transferred to the new swarm always contained *honey.*

It will be readily seen how circumstances alter cases. I had reasoned that no pollen was put into the sections because but little pollen was being gathered at this particular time, and I still think I was correct to a certain extent, but it is now apparent that having honey in the sections when they are transferred to the new hive, is an important feature; and one that circumstances had never allowed me to discover. Were I obliged to use sections of empty drawn comb when hiving swarms, I think I should use one comb, or a part of a comb in the brood-nest; but, fortunately, swarming usually comes when there is honey in the sections, and we are not compelled to use sections containing empty combs when hiving swarms—we can use sections filled with foundation if necessary.

Is it not possible that there is some point necessary to be observed in securing straight combs, that myself and others unconsciously practice, and that Mr. Stiles is neglecting in an equally unconscious manner? I fear there is, and I would gladly help him if I could.

Since my little book was published, I have answered hundreds of eager, questioning letters; and I have done the work cheerfully—yes, gladly—as I often receive more information than I give; and I hope no one will hesitate to write to me for fear that it will cause me trouble.

Rogersville,♂ Mich.

For the American Bee Journal.

Hiving Swarms—My Experience.

WILLIS M. BARNUM.

Things are "middling lively" in my apiary now-a-days. I had an extra large swarm the other morning at exactly 7:30 o'clock. Who can beat that? I am seriously thinking of rearing a strain of "business bees" from this colony.

A bushel basket is about the handiest thing to swarm bees with that I have ever discovered. Just hold the basket under the bees, shake or brush them into it, carry them to the hive and dump them down in front of it—and 'tis done. It is a quick, sure and effectual method—one that will be hereafter adopted in my apiary, at least until I hear of something better.

The other day one of those great, big "bushel basket" swarms came out. I hived them in "regulation style," gave them three or four frames of brood, and went off to work in another part of the apiary. I had not been to work five minutes before I discovered that the same big swarm was coming out again. Well, while they were hovering around in the air, it occurred to me that heat was the probable reason of their not staying in the hive. So, getting a nice, new, cool hive, I placed it right where the other had been; sprinkled the inside of the hive with salt-water, transferred the brood-combs, put on the super, put a shade-board on the hive, and waited for them to settle.

Just as I thought they were going to settle on a grape-vine trellis, they soared up into the air and started direct for the woods. As they started for the woods, I started for the pump. I was determined to have that swarm, if I had to chase them to the Pacific Ocean! Getting a cup and a pail of water, I started after the bees on a run. By running cross-lots, I managed to get ahead of them, just before they reached the woods. By throwing the water into the air in front of them, I actually stopped them, turned them around, and started them back towards the apiary. When I got back, the bees were going into the hive that I had prepared for them, just as fast as they could "scrabble." To-day that is one of the best colonies in the apiary.

Angelica, N. Y., July 18, 1887.

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For the American Bee Journal.

My Experience with Foul Brood.

GEO. H. HOYLE.

I know the opinions of the different authorities on the subject of foul brood, and I know what arguments can be, and are going to be brought against my theory of the disease. I have a firm belief in all the experiments on the disease that have been reported to the bee-papers; but I am careful not to get a party's opinion so mixed with his experiments, but that I can consider each separately. It is my intention, after I state my experiments, to base my arguments solely on the evidence to be found in the AMERICAN BEE JOURNAL, *Gleanings*, and other bee-literature.

I am going to offer no plan of cure adapted to all circumstances; for I do not believe that a treatment is yet found, or ever will be invented, that will suit every case. Therefore, every bee-keeper should learn all he can about the disease, and when it is among his bees, he will know better what to do than anybody can tell him.

I am determined to argue the question honestly and fairly; and if any one sees where he thinks I am wrong, I would be pleased to hear of his experience; and I will not contradict his experiments. In connection with this idea, I want to refer the reader to page 426, the second column and second paragraph. He will see that Mr. J. E. Pond puts me in a very ridiculous position; and it is just as false as it is ridiculous. He thinks that I believe every authority on this disease to be *wholly* wrong. I would rather he called me all the names he could think of, than for him to have stated that: the names could do me no harm, but any who see that article and do not see this, will believe it; and those who believe it can come to but one conclusion about me. However, I have the consoling hope that I will soon convince him that I am right, for he requires so little proof. See the last sentence of the first paragraph and the second column of the article referred to.

Now for something else: On June 16, 1885, I discovered foul brood in one of my hives in the shape of discolored larvæ; but I do not think that it was foul brood, though, because the disease always appeared, in my mind, as associated with "sunken caps with pin holes in the tops:" I was uneasy, though, about it. The honey-flow from flowers ceased that year about May 25, and as I had finished extracting, I was doing very little to the bees except watching that discolored larvæ which I could not understand. On June 21 I opened a hive that had it so badly that about 20 per cent. of the brood was dead with the disease, as near as I should guess. I then began to examine other colonies. I found none free from it, though some cases were not bad. I saw that there was only one thing that could cause this state of affairs, and that was foul brood; and that I must get some remedy and go to work to cure it.

I had read Mr. Cheshire's experiments and views on the subject the year before; and I was so favorably impressed with them, that I took my BEE JOURNAL for 1884 and re-read the articles on pages 644 and 740, and as you may suppose, with no little interest. When I was through studying the articles, I was just as sure that I could cure the complaint with his remedy as is Mr. Cheshire himself. The medicine I got was called "chemically pure carbolic acid." I had then 65 colonies of bees, and as I wanted to cure them all at once, I fed each colony every day. Every evening, as soon as there was no danger of robbing, I would commence to feed, raising the cover of each hive and pouring about 4 ounces of feed down between the frames. I kept this up for eight days, and as I could see no improvement, I decided on a more thorough treatment, which was this:

I would extract the honey from the frames and cut out the combs, all but about 2 inches at the top, which had never had any brood in it; I filled these strips of comb with this phenolated syrup; put them in a hive washed with carbolic soap; then I would take the brood from a colony of bees and put the bees in the hive thus prepared. I also had a lot of this phenolated feed in a barrel, arranged so that all the bees could help themselves to it, which they did. I had prepared 26 colonies in the manner above-mentioned before I could see whether I was curing them or not. But as soon as they had larvæ three or four days old I could see that I had not cured them. I stopped work to watch the result of what I had done: I soon became satisfied that phenol would not cure it.

Now do not put me down as saying that Mr. Cheshire did not cure this disease, for I know he did cure it; and I will explain why he could cure it and I could not, after I get through telling my experience.

I gave up the phenol cure on July 15; and I was just as confident on that day that I could cure my bees as I was the day I commenced it.

I had a boiler made large enough to boil my hives in; I sent for Mr. D. A. Jones' book on the subject; put some colonies in starvation quarters, and went to work cutting out combs, and boiling frames and hives. About this time the hives emitted a strong stench that surpassed anything I ever saw reported. About this time, too, I was taken with a peculiar complaint of the throat, which I attributed at the time to the disease, but since then I thought it might have been produced by the mental anxiety I was in. I boiled every thing; and when I starved a colony I put them in a clean hive, with clean frames with foundation, and fed them boiled honey. I worked 30 in this way. I did not wait until time for sunken caps to appear; for I was a firm believer in the "germ theory," and the least indication of disease in the larvæ statisfied me that I did not cure it. I did not cure one; but I am ashamed to say 2 colonies starved to death, and 2 very strong colonies smothered. Please do not understand me to say that Mr. Jones never cured this disease; I know he has cured it. And I will explain why he could cure it and I could not, after I get through with my own experience.

I began to wonder why the disease did not get any worse in some colonies that I had not worked on. I doctored the worst ones, it is true; but they had it as long as the others, and I could not see why it did not get worse. (I will in the future give my opinion, which is founded on observation, why some colonies have the disease worse than others.) Just about this time I saw the following in

Gleanings, from Dr. O. M. Blanton, of Greenville, Miss.:

"Last year, about June 1, one of my neighbors, Mr. S. C. Vaught, discovered dead brood in his apiary. It first commenced with the capped brood but soon extended to the larvæ, which, in some instances in both soon became decomposed. On examination I found some of the capped brood with minute holes in the cappings, and the decomposition complete. Some of the pupæ just dead I found reversed within their cells. There was a very disagreeable odor from the decayed brood, but not such as described in articles on foul brood. Upon inquiry, I found ten apiaries within a radius of 15 miles of me, affected by it; some to the extent of 15 per cent., and most of it confined to the capped brood. Two colonies in my home apiary were affected slightly. The "Refuge Apiary," with its bright new combs had it in every colony, but it did not reach putrefaction before the bees removed the dead, and filled the cells with honey, and the queen commenced laying as vigorously as ever. Mr. Vaught's apiary of about 250 colonies was so diseased that he determined to let them work out their own salvation, which they did. I uncapped the dead pupæ of some colonies, and the bees soon cleaned the cells.

"Just before the discovery of this condition of things, the bees gathered a great deal of dark, sour honey-dew (aphides), and I attributed the disease to that cause. This year, as far as I can learn, there is no evidence of the disease. It certainly cannot be the forerunner of foul brood, or we should have it this year."

Nearly sick with worry, and almost despairing of ever curing my bees, I need not say that I gladly welcomed the small ray of hope that my bees possibly had the same disease as Dr. Blanton's. Still I could not help feeling pretty much like a broken merchant, as I left my bees and went out into the country to get a rest, which I badly needed, having worked very hard for over two months of the warmest weather we have.

When I came back to Mobile about Sept. 25, my bees were gathering fall honey, the disease had almost entirely disappeared, and even the 3 and 4 story hives (six in number), in which I left a lot of diseased brood from other hives, had developed into populous colonies, and had queens of their own rearing; some of which colonies did as well last year as any I had; but some never did amount to anything until I gave them another queen.

Feeling satisfied that my bees never had foul brood, I went to work putting them in the best condition to winter, almost all of them being reduced to nuclei, from my attempts to cure them. When I had finished that job, I thought I would find the difference between the disease that my bees had, and genuine foul brood. I have looked through my bound BEE JOURNALS, *Gleanings*, and other bee-papers; I have read Dzierzon's experiments, and also Mr. Cheshire's; I have read Jones, Muth and Kohnke on the subject, and I have yet to see a symptom laid down for the detection of the disease that I have not witnessed among my bees. Hence the origin of my theory; and though if proven it will show our best authorities to have made a mistake, it will also show that the mistake in each case is pardonable though a very serious one.

Mobile, ♀ Ala.

For the American Bee Journal.

The Honey-Plants of Canada.

A. H. WALLBRIDGE, JR.

I purchased some Simpson honey-plant seed, and it has thriven well, but alongside of it has come up a well-known plant called by some the "sow-thistle," the "bull-thistle," etc. These plants look wonderfully alike—are they the same?

Mr. Simpson discovered another honey-plant a few years since; I purchased that also, and it turned out to be our common figwort, abundant here. There are yet several honey-plants in this country which he might discover, one of which is called "boneset," a good honey-plant; and also a plant with blue flowers on the racimes, called "bugloss." All these bloom after basswood ceases, and fill up the time until buckwheat blooms. I also purchased some bokhara clover; it looks very much like our sweet clover. Is it the same? People here laugh at my growing plants common to this country, under the idea that I am getting something new.

All the above are good honey-plants, but they are common wild plants here except sweet clover, which grows well when sown. Figwort entices wasps by the hundreds; it is a good honey-plant, nevertheless.

Boneset and bugloss, which I want Mr. Simpson to discover, are excellent plants for honey, and not bad as weeds.

Belleville, Canada.

[The so-called Simpson honey-plant is the "figwort" (*Scrophularia nodosa*), and is often called carpenter's square because of its square stalk, and rattle-weed because its seeds rattle in the pod. It is an excellent honey-producer.

The "sow-thistle" (*Sonchus asper*) has no seeds worth mentioning, being a hybrid. It propagates by division, and is not the same as figwort, which is the only honey-plant said to be discovered by Mr. Simpson.

Bugloss (*Echium vulgare*), called viper's bugloss or blue-plant, belongs to the "borage family," produces honey, but is considered a troublesome weed in many localities.

Boneset or thorough-wort (*eupatorium*) yields rich golden nectar. There are 16 species in the Eastern States and Canada, and is very often mentioned among our best honey-plants.

Bokhara clover is the same as sweet clover (*Melilotus alba*), but designates the imported seed.—ED.]

Home Farm.

Deep or Shallow Frames?

ISAAC HUTCHINS.

One of the reasons given by an advocate of deep frames, is that bees, "when they leave us seek the cavity of a standing tree, long in its up and down position." Another reason is that "as winter approaches they are found clustered in their brood-nest just below their stores, and as the winter season wears on, they gradually move upwards in the line of their supplies, warming their stores for use, and taking their food without breaking their cluster."

All this seems very plausible, and will no doubt cause many bee-keepers of little experience to make a change for a deeper frame, and I fear it will add to their winter losses.

The first proposition does not, to my mind, furnish any proof that a hollow tree is a better hive for bees to winter in, because bees, of a necessity, occupy it.

In the absence of statistics we are unable to show how great their loss is. Bee-hunters in this vicinity inform me that nearly all the colonies they find in trees have not passed a winter, and have not stores enough to carry them through one.

I find by observation that bees on the approach of cold weather cluster below their stores, but the first very cold day you will find them at the top of the frames at the end and next to the entrance, and as winter wears on, and their stores are consumed, they move towards the other end of the frame, taking the honey from the upper part of the frame the width of the cluster, and if the frames is narrow, they sometimes take all the honey from the upper part of the frame, and starve to death with plenty of honey below the cluster and on the adjoining frames.

I am fully convinced that a long frame like the Langstroth is better for wintering bees than a deep and narrow one. Give me a long frame with the entrance at the end of the frame, and no more frames in the hive than the bees will cluster on, with plenty of good stores and a good chaff hive for wintering on the summer stands.

Wellington,⊙ Maine.

☞ The Darke County Union Bee-Keepers' Society will hold their next meeting in the Opera Hall at Union City, Ind., on Friday, July 29, 1887.
J. A. ROE, *Sec.*

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

Local Convention Directory.

1887. *Time and place of Meeting.*

July 29.—Darke Co. Union, at Union City, Ind.
J. A. Roe, Sec., Union City, Ind.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

The Solar Wax-Extractor.—Jacob Wagner, Amana,○+ Iowa, on July 19, 1887, writes:

I have found the solar wax-extractor, described by Mr. G. W. Demaree on page 343, to be of great advantage, as I have made one according to the description there given, and have thoroughly tried it. It is capable of melting any kind of combs in warm weather, and I have melted as much as 10 pounds in a warm day, and only once changed the location of the extractor. The extractor is so simple in construction that anybody able to handle a saw and hammer can make one in half-a-day.

Poor Season—Cure for Bee-Stings.—Dr. A. Eastman, Union,♂ Ills., on July 19, 1887, says:

The honey crop is a failure here this year, on account of the drouth. I am afraid the bees will not get enough honey to winter on. The following is my remedy for bee-stings, which is ahead of anything that I have ever tried or heard of: Pull out the sting, then bathe with "ledum palustre," or "marsh trefoil," the strong tincture.

Too Dry for Bees.—Dr. A. S. Haskin, Lawrence,♀ Mich., on July 18, 1887, writes:

I put away 55 colonies last fall, and this spring I had 17 of them left. Bees are doing very poorly here; we will not have over one-fourth of a crop this year, unless the fall is more favorable than the spring and summer have been so far. The trouble has been that it was too dry.

Only Quarter of a Crop.—M. L. Spencer, Little Genesee,⟜ N. Y., on July 18, 1887, writes:

The honey crop in this locality is a failure—not over one-fourth of a crop, if that. There was no white clover to speak of, and what there was seemed to produce no honey. The forepart of the season was cold and dry; the latter part, hot and dry. The bloom was burned up. Basswood lasted but a few days, and that bloom was fairly burned up. Next comes buckwheat and fall flowers. I never saw honey come in so slowly, and consequently the bees are slow about capping sections, and are stained up some. There was a light shower this morning. I have heard from two other apiaries of 400 colonies, and they report no swarms in one and some honey, and the other has had some honey and swarms. One apiary of 175 colonies has had only 8 swarms, but I did not learn how much honey was taken; the other had some 220 colonies, and has had only 13 swarms, and 600 pounds of comb honey.

No Producers' Association Needed this Year.—Eugene Secor, Forest City,♂ Iowa, on July 15, 1887, writes:

The prospect for honey is not very good. There is no white clover surplus. Basswood bloomed from June 24 to July 10; it was very abundant, and all we have so far is from that. At its opening there was scarcely a pound of honey in a hive. If the fall is favorable we may have goldenrod and thistle honey. The Mississippi Valley is suffering for want of water. In this vicinity crops are fair in spite of unfavorable conditions. The spring wheat and oats harvest is just beginning. The season is about two weeks ahead of time. Judging from my own knowledge, honey is not going to flood the markets next winter. I do not believe that we will need a "Producers' Association" to keep prices up.

Re-Naming Extracted Honey.—E. F. Smith, Smyrna,⊙ N. Y., on July 1887, writes:

In regard to the extracted honey controversy, I am sorry to note the unkind and unjust criticisms of Mr. G. W. Demaree, which have lately appeared in print. When Mr. Demaree suggested the name "liquid honey," for honey out of the comb, no doubt he did so without weighing the matter fully, and when the hydra-headed obstacle, "granulated" or "candied" (liquid) honey arose, it knocked his new name "higher than a kite." Mr. D. should have at once dropped his new name, and acknowledged the unfitness of it. May I suggest the names "combless honey," or *ex-comb* honey? Say I then bought or sold honey as follows: Ten pounds of comb honey at 15 cents, $1.50; 10 pounds of combless honey at 10 cents, $1.00—total, $2.50.

Foul Brood Appearing.—I. P. Wilson, D.D.S., Burlington,○⸜ Iowa, on July 14, 1887, writes:

A few days since, my friend J. W. Ward, of this city, called at my office and said: "I have foul brood in my apiary. You had better examine your colonies. I thought I had better give you warning at once, etc." He then called on Mr. Geo. Bischoff, and delivered to him the same message. Mr. Bischoff and I both examined our bees in the evening, and sure enough, the scourge had come, and if I ever had any doubts about their being such a disease, I certainly am not in doubt now. The odor from this brood is foul indeed! The bees seem somewhat languid, and are not disposed to work. They appear to be discouraged, and yet they are in a healthy condition, so far as I am able to judge of their physical condition. The young bees are perfect in appearance, and all *uncapped* brood are apparently healthy. The foul brood and the healthy brood seem to be about evenly divided, and run in streaks and patches. I spent some time yesterday in examining this putrescent condition with my microscope, and I have no difficulty in finding myriads of bacteria. I have placed some of this foul brood in the hands of Mr. James Peterson, of this city, who is an experienced microscopist, and has given the "germ theory" of disease many years of careful study. I have requested him to give me in detail the result of his observations. I hope to be able to send something from his pen in a few days.

"Clear" Honey, etc.—F. D. Nagle, South Haven,♀ Mich., on July 13, 1887, says:

As it is suggested to have a change of name for extracted honey, I propose the name "clear;" that is, honey free from comb. But I care not what name it may have, just so that it may sell better than it has in the past. The honey crop has been very light so far.

Convention at Chicago.—Arthur Todd, Philadelphia○⸜ Pa., on July 15, 1887, says:

If at all possible I want to go to the convention at Chicago, but any date earlier than Oct. 16 to Oct. 20 conflicts with the county and State Fairs that I want to go to with honey. The best Fair in all New Jersey is the last of all, and is generally Oct. 14, or thereabouts. Many others may want to attend Fairs, so Oct. 18 to Oct. 22 would seem to be the best date.

Fertilization of Queens.—T. F. Kinsel, Shiloh,♂ O., asks the following:

1. When queens mate, are the ovaries impregnated by copulation? If not, what is?

2. A queen—to all scrutiny, perfect—lays "drone eggs" exclusively; what is the trouble?

[1. In mating, the spermatheca, a small sack appended to the ovipositor or egg-tube, is filled with the sperm. Leuckart, of Germany, estimated that this sack would contain, when freshly filled, 25,000,000 sperm-cells. We see, then, why the queen needs to mate but once. These active, thread-like sperm-cells are peculiar in that they retain their vitality or activity even for five years; and so long as active, they are functionally perfect. I do not think that these sperm-cells affect the queen or her eggs, although some do. I believe that a queen, however mated, will produce pure drones of her own kind. If this is not true, the only way that the queen can be tainted in blood, through the presence of the sperm-cells, is by cell-inoculation; something like what takes place when a wound or sore enlarges. Some cells of the tissue are poisoned, and they inoculate others, and so the lesion spreads.

2. It is not very uncommon for queens to prove or become "drone layers." If young, they simply have failed to mate, and as there are no sperm-cells, no eggs can be fecundated. As was well shown by Von Siebold, unfecundated eggs of bees, ants, and wasps will develop, but will always produce drones or males. In case the queen is old, the spermatheca may become depleted, in which case of course the eggs will remain unfecundated.—A. J. Cook.]

White Clover Nearly a Failure.—B. W. Peck, Richmond Centre,♂ O., on July 14, 1887, says:

The white honey harvest has closed here. White clover was nearly a failure; basswood did fairly well. I have taken about 40 pounds per colony—about one-half comb and the other half extracted honey. I commenced with 38 colonies, and increased them to 48. Those who let their bees swarm got but little honey. We need a rain for the fall crop.

Lucerne.—Wm. J. Tracy, Burrillville,♂ R. I., writes:

I send a plant to be named. I think it is a species of clover, and until recently I supposed that it was sweet clover, but I find that it is different plant.

[The plant is *Medicago sativa*, the common Lucerne. It is not cultivated to a great extent in America, but it is often found thinly scattered over the greater portions of the United States.—T. J. Burrill.]

Very Little Honey Taken, etc.—Paul Scheuring, Nicollet,○+ Wis., on July 14, 1887, writes:

Last year I commenced the season with 108 colonies, increased them to nearly 200, and got 6,500 pounds of comb honey and 1,500 pounds of extracted. This season I commenced with 160 colonies, having increased them, by natural swarming, to 215 colonies, and have not had 25 pounds of honey; and for every pound I extract from unfinished sections I will have to feed at least the same amount of sugar syrup for winter stores. As I do not believe in feeding extracted honey, I always save the nicest combs of honey for the bees for winter; but when I do not get any, and have to feed for winter, I prefer sugar syrup to any other feed. Where bees are wintered in the cellar, in putting them out in the spring is it necessary to put them on their same stands; that is, must each colony have the same place which it occupied the season before, or will it do to interchange them?

[No; they will mark their location anew after their cellar experience.—Ed.]

Honey-Plants of Idaho.—F. H. McDonald, Star,♀ Idaho, on July 4, 1887, writes:

One colony of my bees cast a swarm on May 2, and another on May 13. The latter part of May was cold and frosty, and the bees killed off their drones by the score. In June bees did well, and there was plenty of swarming. The following is what our bees have to work on: Willow, balm, poplar, fruit-bloom, blackberry, raspberry, white clover, red clover, and alfalfa, the last but not the least. The bees gather more honey from alfalfa than from any other bloom we have.

Time for the Convention.—E. H. Collins, Mattsville,⊙ Ind., on July 20, 1887, says:

If the Convention is held at the time of the Fat Stock Show I can go; and also many in this community go to the Fat Stock Show who do not go to a local entertainment.

"Slung" Honey.—M. S. West, Flint,♂ Mich., writes:

Apropos of the discussion regarding a name for honey out of the comb, how do you like the name given by a customer who came to me to buy "slung" honey, as he called? Several in this vicinity call the extractor a "honey slinger," and its product "slung honey."

[No! No! That will never do. It is indefinite, inelegant, uncertain, unsuitable, and wholly inappropriate.—Ed.]

Indorses all its Acts.—L. Eastwood, Waterville,⊸ O., on July 19, 1887, says:

I am in a fruit-growing neighborhood, and within corporate limits; the people are intelligent, and understand that the bees work for their interest, as well as for mine. Others may come of different minds, and make war on the bees—since it is becoming epidemic—"no telling where lightning may strike;" so I cheerfully renew my membership in the "Union," and indorse all its acts. The Manager's report shows that "in union there is strength."

No Surplus this Season.—Thos. O. Hines, Anamosa,○+ Iowa, on July 15, 1887, says:

There is no prospect of getting any surplus honey here this season. White clover looked as nice as I ever saw it, but it did not seem to have any honey in it. We have had very little swarming in this neighborhood, and what we have had will starve, unless we have a good honey-flow this fall.

Nothing to Report.—M. W. Shepherd, Rochester,♂ O., on July 18, 1887, says:

No white clover, no basswood; no honey, no swarms—no money. Who envies us our fortune?

Small Crop—Alsike Clover.—J. Few Brown, Winchester,♂ Va., on July 18, 1887, writes:

The season in this locality for surplus honey gathering closed about July 8, with a very short crop gathered, not more than one-fifth of last season's crop. There was plenty of bloom, but very little honey. My 100 colonies will not average more than 15 to 20 pounds of surplus, with only 3 swarms. My 2 acres of Alsike clover, sowed last season with timothy, was filled with bees from daylight until dark, and made splendid hay. I have never seen mentioned why Alsike hay is free from dust. I think it is because the stalk or stem is free from fuzz, while the red clover is not.

Flowers Fertilized by Bees.—A. C. Tyrrel, Madison,♂ Nebr., on July 18, 1887, writes:

To prove that bees *do* fertilize flowers (if proof is necessary after all that has been written upon the subject by eminent writers), I send two stalks of Melissa in bloom—one white, the other blue. The flowers, when the plants were first imported, were pure white, and remained so until I procured bees. It will be observed that a great transformation has taken place, not only in the flowers, but the stalk has been changed from green to blue. I wish to ask if honey gathered from the blue flowers will be darker in color than that from the white? If so, I will destroy all of the plants having blue flowers. The pollen is certainly much darker.

[It is a transformation, indeed. The white flowers of the original are blue in the improved, and the stalk also has become purple. No further proof of the agency of the bees in cross-fertilizing and improving the flowers is at all necessary, yet it is pleasant to witness it under our own supervision and management. You can easily test the matter about the color of the honey. We do not think that it will be darker in the plants with the blue flowers.—Ed.]

Centrifugal Honey.—Mark Coffin, Milton,♂ Ky., writes:

There appears to be considerable discussion about the name for "extracted honey," and I think the term extracted frequently creates a wrong impression. A groceryman in this place put labels with "extracted honey" printed on them, on some packages of honey, and a little girl went home and told her ma that Mr. N. had "extract of honey," and she was sent back to the store to get some, and the lady remarked that it was no better than strained honey. Now if no better name can be found, I would suggest that we call it "centrifugal honey," which would be expressive, and most people would understand that it was thrown out by centrifugal force. In some instances it might need an explanation, but not often. I think that Mr. Demaree might like that as well as "liquid."

A "Helping-Hand Society."—W. H. Shirley, Millgrove,♀ Mich., on July 15, 1887, says:

My honey crop for this year will not exceed the $1.25 fees for the National Bee-Keepers' Union, unless the latter part of the season is better than it has been so far. I cannot afford to miss the benefit that the Union has been, and will continue to be to our pursuit. I cannot understand why bee-keepers will neglect to join such a "helping-hand society."

Strained Honey, etc.—F. Wilcox, Mauston,⊙ Wis., on July 14, 1887, says:

I have not taken a pound of comb honey yet this season, and only one pound per colony of that other kind—let us call it "strained," because the old-fashioned strained honey has entirely disappeared in this country. The time fixed for the convention, Nov. 16 to 18, suits me very well.

Honey Enough for Winter Stores.—John Peters, Eldora,⊙ Iowa, on July 19, 1887, writes:

The bees are provided for; they had 6 days run on basswood. The weakest have enough, and the majority have some surplus. My amiable and beloved wife has been taken from me by death. My apiary being in the middle of the farm, I fear no trouble from neighbors. I send my fees to the Union, however, so as to defend the pursuit.

Securing Increase—Half a Crop.—Harvey Feathers, Royalton,⊙ Wis., on July 18, 1887, writes:

We have had some exceedingly hot weather here for the last week; on July 16 it was 104° Fahr., the warmest that it has been for many years. I see from reports of some bee-keepers, that their bees do not swarm as much as usual. We have had the most excessive swarming that we have ever had. I had 220 colonies, spring count, and almost all of them have swarmed. On June 24 and 25 we had 49 prime swarms (for I allow no others to issue), which kept my wife and myself very busy hiving them. My manner of getting increase is as follows: Put about ⅔ of the bees from each of 2 swarms into one hive, and return the remaining bees to their former homes; by so doing I have to sacrifice ½ of my old queens, but I keep all of my colonies very strong in bees, and consequently get enough more honey to more than compensate for the loss of the queens. Bees in this locality did not store much surplus honey from the clover this season, but basswood yielded fairly well, with the exception of two days; it lasted from June 30 until July 11, which was ten days earlier than usual. We do not expect more than one-half of a good crop of honey this season. Last season I obtained 11,000 pounds of nice comb honey from 175 colonies, spring count.

"Honey" vs. Extracted, etc.—T. Pierson, Summit,⊙ Va., says:

In reference to the matter on pages 421 and 435, about re-naming extracted honey, it seems to me that calling honey out of the comb simply "honey" is best, as you suggest on the latter page. But if a new name is wanted, how would "separated" honey do? Creamery men separate milk from cream by centrifugal force. Would it show a lack of originality or an act of petty stealing to use the word "separated?" Can you recommend the rubber stamp advertised by G. T. Hammond, Brockport, N. Y.

[Yes; we have one of the rubber stamps, and it works to perfection, and we want nothing better.—Ed.]

Drouth and Buckwheat.—H. H. Brown, Light Street,⊙ Pa., on July 20, 1887, writes:

I have had no surplus honey yet. White clover was plentiful, but there was no honey in it. There is but little basswood in this locality, and buckwheat honey will not be much, for the past five weeks have been too dry to plow so as to sow buckwheat, and the drouth is going to hurt late fall honey-plants, as they are dying. So prospects for buckwheat cakes and honey are rather poor. But we will hope that it is for the best.

Honey Crop very Light, etc.—Rev. S. Roese, Maiden Rock,+o Wis., on July 15, 1887, writes:

In this (Pierce) and adjoining counties the honey crop is very light. We had some white clover. It has been too dry, and in some localities no rain has fallen since the snow went off. Basswood opened ten days earlier than usual, and yielded very little honey; the flow lasted only three days. We have had, of late, several good showers, but too late for basswood. Wild sunflowers and goldenrod are just appearing, and we hope for some fall honey from the several kinds of fall flowers. I lost about all my bees last winter in an above-ground bee-house. I got some again in the spring (27 colonies in all), which cast only 14 swarms. Many hives are full of bees, and ought to swarm, but they seem to understand the season and matters in general better than their keepers; at any rate all of mine have stores enough for winter. I extracted in all only 1½ barrels of basswood honey. I have all my bees in Simplicity hives and frames, with upper story, and all filled with combs saved from last year. The Northwestern Bee-Keepers' Convention I think will meet just at the right time to suit us all in this part of the country. Our bees are put into winter quarters about the 10th or middle of November, and at the appointed time, Nov. 16, 17 and 18, on which dates fare will be low, we will take the opportunity to see our many fellow-bee-keepers.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—We quote: Extracted, 5@7c., according to quality and package. New honey in 1-lb sections brings 15@16c., and one nice lot sold for 17c. Comb honey crop of 1886 is exhausted.

BEESWAX,—22c. R. A. BURNETT,
July 20. 161 South Water St.

DETROIT.

HONEY.—Some new white comb sold at 12½ cts., but prospects for better prices are good.

BEESWAX.—23c.
July 20. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5¼@5½c; light amber, 5@5¼c.; dark, 4½@5c. Comb, 2-lbs., 10@14c.; 1-lbs., 10@15c. Market firmer and prices improving.

BEESWAX.—20@23c.. Market firm.
July 19. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 8@10c. Strained, in barrels, 3½@4c. Extra fancy, ¼ more than foregoing prices. Extracted, 4¼@4¾c. Market dull.

BEESWAX.—Steady at 21c. for prime.
July 11. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@14c.; amber, 7@c10. Extracted, white, 4¾@5c.; light amber 3¾@4½c. Market quiet.

BEESWAX.—19@21c.
May 14. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice new 1-lbs., 14@15c.; old 1-bs., 12@12½c.; 2-lbs. not in demand, 10@11c. White extracted in kegs and barrels, 7@7½c.; in small tin cans, 7½@8c.; dark in kegs and barrels, 6@6½c.; in small tin cans, 6½c. Market ready for new crop.

BEESWAX.—25c.
July 21. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way.

BEESWAX.—17@20c.
July 14. CLEMONS, CLOON & CO., cor 4th & Walnut

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C.F. MUTH & SON, Freeman & Central Av.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales very light. Fancy white extracted in good demand, but supply limited.

BEESWAX.—26 cts. per lb.
July 11. BLAKE & RIPLEY, 57 Chatham Street.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

Don't do it!—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 **cents** per lb. Orders solicited.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Advertisements.

TESTED QUEENS, $1.—Bees, Supplies, etc. See Foster's adv't. on page 432.
28Atf

ITALIAN Queens by return mail, Tested 90c.; Untested, 50c., or $5.50 per dozen.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

WANTED, for 30 days—Orders for Italian Queens at 60c; 2 or more at 50c each. Satisfaction guaranteed.—W. G. FISH, Ithaca, N. Y.
30A1t

HONEY for SALE.

400 **POUNDS** of Comb Honey in 1-lb. sections and in 12 and 24 lb. Crates. For sale cheap, if bought at once.
LOUIS WERNER,
30A1t EDWARDSVILLE, ILLS.

WANTED,

ALL the Bee-Men who see this advertisement to send us hundred pounds of 1-lb. and 2-lb. sections of White Comb Honey, as sample, by Express, stating quantity and price for same. Cash, delivered in Kansas City. **CLEMONS, CLOON & CO.,**
Cor. 4th & Walnut, Sts., KANSAS CITY, MO.
30A4t

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

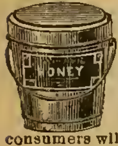
A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

UNTESTED DAUGHTERS from one of Doolittle's best Queens, only 50 cts. each. Tested Queens, $1.00 each.
26Atf **I. R. GOOD,** Nappanee, Ind.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

PATENTED. JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled: **THE PRODUCTION OF COMB HONEY.** In which, from the time of building up colonies in the spring, to the removal of the honey from the hives, the problem of securing the most first-class honey with the least expenditure of capital and labor, is clearly explained; the author carefully outlining the system that he believes to be best, and giving reasons for his belief. ☞ Price of the Book, **25 cents.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
28Atf

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

BY RETURN MAIL!

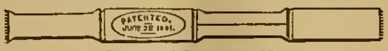
SIX Warranted Italian Queens	$5 00
Fourteen Warranted Italian Queens	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

"Boss" One-Piece Sections,

MANUFACTURED BY

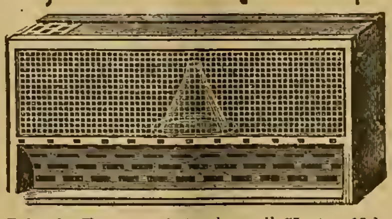
J. Forncrook & Co., Watertown, Wis


PATENTED. JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 85 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

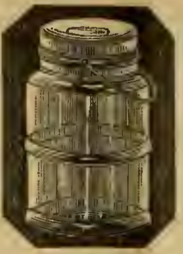
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	$1.60
" 2 pounds " "	2.00
" 3 " " "	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

ITALIAN Bees and Queens for sale.—Untested Queen, 75 cents; 6 for $4.00. Send for Circular, Free.—JOHN NEBEL & SON, High Hill, Mo.
23A8t

STILL LOWER.

TESTED Italian Queens	$1 00
Untested Italian Queens	60

☞ Bred from Imported Mothers.
Address, **C. WEEKS,**
28A3t CLIFTON, TENN.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

BY RETURN MAIL.

ADEL, IOWA.

H. ALLEY.—I must say that the two Queens you sent me, are the largest and finest Queens I have ever received. They are simply perfection.
DR. W. R. CULLISON.

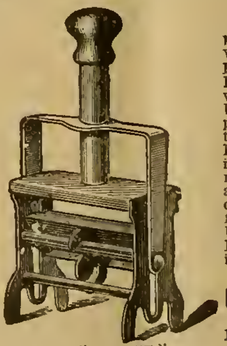
Warranted, $1; Selected, $1.25; Tested, $1.50

HENRY ALLEY,
29Atf WENHAM, MASS.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin, Hartford, N.Y.
6W(3tm)40t

SELF-INKING RUBBER-STAMP.



THE "MIDGET."

2,000

Impressions for 10 cts. Will last a life-time. Everybody needs one. It prints indelibly Envelopes, Letter-heads, Postal Cards, Wrapping-paper, Bags, Sections, Crates, Cartons, Bedding, Robes, Clothing—everything. Your name, occupation and address, with the machine complete, sent free by mail, for $1.00 P. O. Money Order. Extra ½-oz. bottles of ink for 12c. in stamps.
Address,

GEO. T. HAMMOND,
Brockport,
Monroe Co., New York
26Etf

BEES for SALE, Cheap.

100 **Colonies** of American-reared **Italian Bees,** best strain, strong, and in 10-frame wired Simplicity hives; for sale CHEAP. Address, **Z. A. CLARK,**
8Etf ARKADELPHIA, ARK.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. August 3, 1887. No. 31.

The Hot Weather seems to have been general this summer not only in America, but also in England and on the Continent of Europe. The excessive heat has dried up the nectar in the flowers, and ruined the honey crop for this year, not only in America, but also in Europe.

What honey there is, however, will command a good price. Last week we heard of a man, who had 500 pounds of comb honey, being so foolish as to offer it for sale in a neighboring town for 15 cents per pound at retail, when he could just as well have had 25 or 30 cents. He was probably too poor to take the BEE JOURNAL, and hence threw away $50 because of his ignorance.

* * *

Foolish Abbreviations.—When writing to this office it is essential to name the State you live in as well as the Post-Office where you get your mail. To use unintelligable abbreviations is foolish. We often have letters with nothing but M. to indicate the State. Now that may mean Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri or Montana. In order to find out which is meant, we have to waste valuable time to look over all these States, because the same Post-Offices occur in nearly all the States—all because of a foolish abbreviation which means nothing.

Others write "Ia." to indicate the State. This may mean Indiana or Iowa, and often causes serious delay in attending to business, or the loss of the papers, books, or goods sent. We request all to be more careful in this matter.

A man was in the office some time ago, and honestly propounded this question to us: "What is the difference between comb foundation and *fdn.?* We explained it to him, and he was astonished; he always thought that each was a distinctive name of something.

There are quite a number of other foolish abbreviations. Among these we will only refer to one. A double-cross is used for numbers, pounds, dozens, etc. Especially in orders care should be taken to make everything plain, and no abbreviations, dittos, or double-crosses should be used.

Wily Tricks of Prof. Wiley.—By the Washington papers we are informed that some more of Wiley's tricks have been discovered and exposed. The following from the Lansing, Mich., *Republican* tells the story:

> WASHINGTON, D. C., July 16.—A delegation of prominent Kansans are here for the purpose of protesting against subjecting the experiments in producing sorghum sugar to the control of Prof. Wiley, of the Agricultural Department. It is alleged that Prof. Wiley, while conducting these experiments in Kansas last year, used his best efforts to promote failure rather than advance success; this in the interest, as charged, of the beet sugar producers of Europe.
>
> Congress made an appropriation last session of $50,000 to continue these experiments, and the Kansas parties say if Prof. Wiley is permitted to direct the same, the money will be expended to defeat the enterprise.
>
> The Kansas legislature, at its late session, appropriated money for a bounty of 2 cents per pound for the production of sorghum sugar at the Fort Scott Sugar Works, but the authorities decline to use this fund if Prof. Wiley has any connection therewith.
>
> Commissioner Colman promised that Prof. Wiley should not be sent out, but, it is charged, has not kept faith, and the President will be appealed to, to prevent the consummation of a suspected conspiracy to destroy an industry which is said to be on the verge of success, and capable of supplying cheap sugar in quantities more than can be consumed in the United States.

Fortunately we have a President who is noted for his integrity and honesty, and we do not believe that he will allow this notorious "Professor," while in the employ of the Government, to use his position to destroy any legitimate pursuit by trickery, deception, lying and fraud.

This is the same Wiley who, in the interest of the glucose men, undertook to injure and if possible destroy the honey interests of the country, by inventing a "pack of lies" about the "manufacture of honey comb by machinery, filling it with glucose and then sealing it over with a hot iron." He well knew at the time that he wrote it, that it was a falsehood from beginning to end, and when cornered by the AMERICAN BEE JOURNAL demanding the proof, he attempted to justify himself by saying that he wrote the "story" as a "scientific pleasantry," never thinking that any one would take it for a truthful account. Yet, notwithstanding the fact that it has been almost universally quoted by the periodicals of America and Europe as a "statement of facts" (which it purported to be), he has never had the manhood, the honesty, or the honor to write the first sentence to correct the matter! All this, too, while he knew that the industry of bee-keeping was daily being injured by the repetition of the falsehoods of which he was the father and inventor!

In view of these facts, we hope that President Cleveland will investigate the matter presented by the delegation from Kansas; and if found to be the truth, let Prof. Wiley know that the Government of the United States will not tolerate such a dishonest officer, or allow him to use his influence to injure any honorable pursuit.

That he is incompetent as well as dishonest, is exhibited by the fact that when PURE HONEY was sent to him at his request, by bee-keepers of well-known integrity, he pretended to analyze it, and pronounced it adulterated in his Report published in the fall of 1885.

Mr. Ivar S. Young, in his letter to us and other editors says: "I am going to visit the first and greatest bee-keepers of the world—the Americans—in order to study practical bee-keeping." We did not state his language in our notice on page 435, but the *Canadian Bee Journal* did so, and its editor remarks thus:

> "While he may consider the Americans the greatest bee-keepers in the world, we hope to show him that the Canadians can make a much finer display of their product. Before his visit is over, we expect to be able to hear him say that he should have coupled Canada with America in the statement which he has made."

The following is just received from a subscriber of our Canadian cotemporary, and fully explains itself:

> "FRIEND NEWMAN:—What is the matter with D. A. Jones? Is he jealous or crazy? See page 350 of the *Canadian Bee Journal* for July 20. Is not Canada *a part* of America? His talk is *utter nonsense*, and tends to make 'hard feelings;' like the 'Canadian linden honey and United States basswood' article of a year ago. I do not like such talk."

Bro. Jones is at fault in his knowledge of geography; that's all! He evidently thinks that Canada is *bigger* and of more importance than the whole continent of America; when in fact it is but a *small* portion of that continent. The article about "Canadian Linden Honey *vs.* American Basswood" was, no doubt, a great *blunder!* as was the naming of his paper? But we must overlook such little things in him. It is his nature to be *impulsive*, and to make very *inflated statements*. We do not think he intended to be discourteous to the apiarists south of the great lakes, even though his language made it so appear.

That Canada obtains a good crop of honey; that it is of excellent quality; that they make grand exhibits; and that they have some of the best apiarists of the world, we freely admit, without even a thought of jealousy, or feeling of envy! And when Americans are referred to as "the greatest bee-keepers of the world," as they are by Mr. Ivar S. Young, we never think of depriving Canadians from their full share of the honor; or imagine for a moment that they desire to secede from the rest of the Continent, or wish to detract from the glory and reputation of America, or American apiarists.—No! We all say most enthusiastically—

> "No pent-up Utica contracts our powers;
> The whole unbounded Continent is ours."

* * *

The Fourth Annual Fair of the Freemont Agricultural and Driving Park Association will be held at Freemont, Mich., on Oct. 4, 5, 6 and 7, 1887. Geo. E. Hilton is Superintendent of the Apiarian Department, in which liberal cash prizes are offered.

* * *

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Getting Rid of Laying-Workers.

Query 450.—What is the shortest and surest method of getting rid of a laying-worker bee? I had a strong colony come from the cellar queenless, the past spring, with a laying-worker in the hive.—W. C., Minn.

Unite them with a colony having a good queen.—C. C. MILLER,

Introduce a cheap laying queen, by caging her two days. This process dever failed for us.—DADANT & SON.

Unite with a strong colony, taking the usual precautions.—A. J. COOK.

Give a frame or two of bees and brood accompanied by their own queen.—W. Z. HUTCHINSON.

By giving plenty of young larvæ, and in a day or two a queen-cell, I have no trouble in getting rid of them.—G. M. DOOLITTLE.

Give the colony that has the laying-worker, at intervals of three or four days, two or three frames of brood in all stages, and they will start queen-cells, and the laying-worker will disappear.—J. P. H. BROWN.

I consider this too much of a theme, requiring too much space for a valuable reply for this department. I have told how I succeed, in my book.—JAMES HEDDON.

I get rid of them by mixing up the bees with a strong colony, and then giving a new young queen to a queenless colony. I think the above plan as short and sure as any I have heard of.—J. E. POND.

Take the frames from the hive, carry them a few rods away and shake off all the bees; return the frames and you will get rid of the laying-workers. Introduce a queen as soon as possible, or put in a good queen-cell ready to deliver a queen.—H. D. CUTTING.

Cage the queen of a strong colony on a frame of her own hatching-brood. Take with it the bees that may adhere, and place them in the colony having the laying-worker. Then change places with the hives. As soon as the bees cease to ball the cage, the queen will be safely received. If not many bees are left with the laying-worker, it is better to take away the combs, and give to other colonies or divide a good colony. —G. L. TINKER.

I have uniformly succeeded by carrying the combs a few rods away and shaking the bees down on the ground and leaving them to return home at their leisure. I remove from the hive such combs as have drone-brood or eggs in them, and supply their places with empty combs or combs of honey, and at least one frame of brood and adhering bees. If I have queen-cells on hand, I give them a maturing cell after two or three days, or leave them to rear a queen from the brood given them. The operation is best done late on some warm evening.—G. W. DEMAREE.

Unite the colony having laying workers with a strong colony which has a good laying queen.—THE EDITOR.

* * *

Swarming and Superseding Queens.

Query 451.—Is it usual for a colony of bees to swarm at the same time, and from the same lot of queen-cells used for superseding their queen?—Minnesota.

It is not usual, but they frequently do it.—J. P. H. BROWN.

It is, during a honey-flow.—G. L. TINKER.

Yes, if they superseded their queen in the honey season.—DADANT & SON.

I hardly think it is "usual."—W. Z. HUTCHINSON.

I think not. It would depend upon why they superseded their queen. If a colony is large, they will send out swarms.—A. J. COOK.

Oh, yes. The swarm goes with a newly-hatched virgin queen the same as in the casting of after-swarms.—JAMES HEDDON.

That's a hard one. When a colony swarms, what means have you to determine whether they were superseding their queen or not? Still, if I were obliged to say "yes" or "no," I should take the chances of saying "no."—C. C. MILLER.

Not with me. If the queen dies before the cells hatch, and honey is plenty, together with much brood and many bees, they usually will do so; but if the old queen lives until the young one hatches, they do not.—G. M. DOOLITTLE.

Who can tell? They swarm when they please, but never without a queen. My opinion (and I frankly own it is theory only) is that swarming does not take place under the conditions state above.—J. E. POND.

During the swarming season colonies superseding their queens always swarm just as though the "superseding" had resulted in a prime swarm. The first swarm that issues under such circumstances is, in theory, an "after swarm," because it has a virgin queen (the old mother having been superseded); but in fact it is a prime swarm in size, and in identity of bees. The inclination of bees to supersede old, or otherwise defective queens, accounts for a great many freaks in bees, not well understood by the ordinary observer. Swarms out of season, "swarming out," etc., is traceable to this cause. Many persons boast of "very early swarms," when, it fact, they are the result of a desire to supersede the old queen.—G. W. DEMAREE.

Though it is unusual, it sometimes occurs during the honey season.—THE EDITOR.

* * *

Ants in the Apiary.

Query 452.—Ants are a pest in my apiary, both the black ants that raise mounds of earth, and the large black, wood ants which make their homes in decayed wood. They raise mounds of earth under the bottom-boards into the entrance of the hive, and get into the chaff hives, eating through solid wood to the bees. Strong colonies keep them out of their hives, but in nuclei they bother exceedingly, killing bees and eating honey. How can I get rid of them?—Apis, N. Y.

Tell *me* and I will be obliged to the fraternity.—G. M. DOOLITTLE.

Try sprinkling salt upon the hills or mounds.—W. Z. HUTCHINSON.

Pour boiling water in their nests, and keep the ground sprinkled with quick-lime.—J. P. H. BROWN.

Our remedy is to find the nests and pour boiling water into them at night, or in the evening. Salt or sulphur (powdered) will keep them out of the hive.—DADANT & SON.

Place camphor-gum or tansey around the hives, and you will not be troubled with ants; at least that is my experience.—H. D. CUTTING.

Powdered borax sprinkled in their way will help some to keep them out of the hives; but you will have a pretty big contract to get rid of them entirely.—C. C. MILLER.

My apiary has been pestered with ants, but they have not injured my bees. I got rid of them, but I do not know exactly how, as I used kerosene, boiling water and borax—and plenty of each. The above treatment in part, or all, drove the ants away. I think the borax did the job; I used a very strong solution.—J. E. POND.

I do not agree with some authorities that ants go into bee-hives chiefly to hatch out their brood, the warmth of the bees being a help. From what I have seen, ants go into hives after honey, and only take along their brood incidentally. The ants may all be killed by placing a mixture of equal parts of Fowler's solution of arsenic and honey under boxes in small dishes, or in any place accessible to them, but entirely out of the possible reach of the bees.—G. L. TINKER.

There are two good ways to get rid of the ants, viz: 1. Make holes with a crowbar in the hills, and turn in kerosene oil or bi-sulphide of carbon. In the last case stop up the hole quickly by stamping in earth. 2. Place poisoned sweets in a gauze box, with meshes in the gauze that will admit ants, but not bees. Paris green may be used.—A. J. COOK.

Strong brine will destroy ant-nests, and wet salt will keep them out of the surplus departments of the hives. I prefer salt to any other remedy, because it is harmless to the bees, and is cheap besides. Many have failed with salt, because they have applied it in the dry state. I use it either as a strong brine or made as wet as it can be handled. When ants establish themselves in the stuffed walls of chaff hives, they are a real nuisance, because one cannot get at them with any remedy. For this reason I do not like chaff hives, if for no other reason. I have never known ants to do more than annoy bees, and make them cross and disagreeable to handle.—G. W. DEMAREE.

A strong solution of borax, brine or kerosene will usually drive them away.—THE EDITOR.

Seed Time and Harvest.

Trouble Everywhere.

JOSEPHINE POLLARD.

There's trouble in the dwelling,
Trouble on the street ;
There's trouble in the bosom
Of every one we meet ;
Morning, noon and midnight
There's trouble in the air ;
And oh ! there's no denying
There's trouble everywhere.

There's trouble in the garden ;
Beside the sweetest rose,
Beside the fairest lily,
The thorn of trouble grows ;
There's trouble on the ocean ;
There's trouble on the land ;
And when the sunshine's brightest
There's trouble close at hand.

From troubles that pursue us
We never can escape ;
They're sure to overtake us
In some peculiar shape ;
To circle slowly round us,
Or seize us, unaware ;
Trouble's sure to find us, for
There's trouble everywhere.

But after storms of trouble,
How blessed is the calm !
And after wounds of warfare,
How soothing is the balm !
And when from tribulations
Our spirits have release,
If but for one brief moment,
We know the joy of peace.

So trouble has its mission,
As through the world it goes,
A message unto mortals
In every breeze that blows ;
It moves the stagnant waters ;
It stirs the pulse of health ;
Gives courage to the hero ;
To every laborer wealth.

'Tis trouble that incites us
To brave and daring deeds.
'Tis trouble that prepares us
To feel another's needs ;
Each heart must bear its burden
Of suffering and care :
For man is born to trouble.
And he finds it—everywhere.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

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Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; δ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ϙ southwest of the center of the State mentioned.

For the American Bee Journal.

Proposed Legislation for Bee-Keepers.

WM. F. CLARKE.

I am badly in arrears both as to private correspondence and writing for the bee-periodicals. Family bereavement is chiefly responsible for this. My brother, Sheriff Clarke's death, which occurred April 17, was followed within a month by the demise of a widowed sister. Being the only brother within 1,000 miles, it naturally devolved on me to settle up her affairs, and as her home was 150 miles distant from mine, absence was necessitated, with consequent delay in getting letters, replying to them, reading the bee-papers, and home work generally. I despair of "catching on" or catching up ; an "uncounted remainder" of things must be relegated to limbo, but there seems to be some cogent reasons, why I cannot consign Mr. Foster's article, on page 406, to that irrecoverable realm. So I crave space for a brief reply.

Mr. Foster says at the outset : "It seems to me that he presses his point rather strongly with regard to Dr. Miller's position regarding priority !" There is no impropriety, but the reverse, in pressing a point strongly, provided it be not done unfairly, and Mr. Foster does not accuse me of that. He admits that there was difficulty in understanding the Doctor's position, and expresses the opinion that it has "never been clearly defined." I think this has been the chief source of the trouble. The Doctor felt that some protection was needed by bee-keepers who were specialists, to prevent their being elbowed out by new comers. He thought legislation of some kind might be brought to bear upon the grievance, but he did not propose any definite form that it should or could take, and perhaps had, in his own mind, only a vague, general idea of a desideratum of some sort or other, to meet the case. He was generally understood to advocate "priority of location," and, to put it mildly, permitted himself to be so understood, until near the close of the discussion, when he disclaimed it vehemently, but failed to tell us what he had really intended to argue for. I thought I would let him "down and out" in the easiest possible manner by suggesting that it was quite possible for a man to fail in the endeavor to understand himself, but I could not think of admitting that I and many other bee-keepers did not know the meaning of plain and simple terms, by conceding that the Doctor had never advocated "priority."

Well, now along comes Mr. Foster with his little scheme, which he kills dead at the start, and at the finish, by doubts as to its "legal practicability." Of what earthly use is any impracticable legislation ? It is of the first importance in enacting a law that it be within the bounds of practicability. Unless a proposed measure be legally practicable, why lumber up the statute-book by putting it there ? I think a little reflection will suffice to convince any thoughtful person that Mr. Foster's doubts as to the "legal practicability" of his plan are well-founded. He proposes that certain bee-territory shall be sold at auction to the highest bidders. The sale is to be "under certain regulations and restrictions." One of them is, "that all present owners of bees may have the privilege of keeping their present number of colonies by paying a specified tax per colony." This would virtually drive "all present owners of bees out of the business." For who would think of continuing in it, if limited to "the present number of colonies ?" Increase would obviously be a trespass on the vested rights of the highest bidder or bidders, and must be interdicted in some way. A not very desirable state of things would be originated. Searching premises to see if the number of colonies was in excess, and suits at law for inhibition and damages are among the natural results that loom up in connection with this scheme for obtaining possession of "bee-territory." Instead of the bee-business continuing as now a fair competition, it would become a monopoly, and I think a little closer examination will easily enable Mr. Foster to see injustice in such legislation as he proposes.

Before Mr. Foster quits the realm of imagination, wherein he is drawing fancy sketches of impracticable statutory enactments, will he "try to imagine" the effect on honey production and its profits of the additional cost which must be charged to the debtor side of the ledger by the purchase of bee-territory ? The expense of producing a pound of honey is already such as to leave a very narrow margin of remuneration to the bee-keeper. It will be still narrower if the privilege of keeping one's present number of colonies must be paid for at so much *pro rata* for each colony, and if the specialist must give such price for the ownership of territory as the enthusiasm of bidders at an auction sale may exact. At such a sale there would probably be parties contemplating the bee-business who "see millions in it," and would bid accordingly. There is an element of justice and of right in a prior occupant having a pre-emptive claim conceded to him, but injustice appears to be involved in liability to be over-bidden by speculative rivals who have exaggerated ideas of the possibilities of bee-keeping.

Over-crowding is doubtless an evil, but I see no practicable legal check to it. There are two potent checks always in operation—respect for the rights of others, and self-interest. They are like the air-brakes on a railway train, sometimes failing to operate, but usually effective, and the best at present available.

Guelph, Ont.

Selected.

Recipes for Destroying Ants.

HENRY T. WILLIAMS.

1. Take 4 ounces of quassia-chips; boil for ten minutes in a gallon of water, dissolving in the liquid while cooling 4 ounces of soft-soap.

2. Take 1 pound of black soap, dissolve it in 4 gallons of water, and sprinkle the solution through a fine rose over the runs and nests, taking care, however, not to water the roots of the plants with it.

3. The following is a successful poison: Ferrocyanide of potassium, 1 drachm; raspings of quassia, 1 drachm; sugar in sufficient quantity to form a syrup. The ants are said to devour this greedily and die almost immediately.

4. Fresh Peruvian guano will drive ants from any spot, however firm a hold they may have obtained on it.

Paraffine and benzoline oil are said to have the same effect.

Turpentine, gas-water, flowers of sulphur, lime-water, a decoction of elder leaves, chloride of lime dissolved in water, and camphor have all been used.

5. For ants in a lawn put a large flower-pot over their hole or place of operations. The ants will build up into the pot, and in a short time it may be lifted up and carried away and dropped into a vessel of water, which will be the end of them.

6. For ants on fruit-trees put a line of gas-tar all around the tree, and that will stop their progress.

7. Ants in flower or garden beds may be destroyed as follows:

Take 2 ounces of soft-soap, 1 pound of potash, and about 2½ pints of water. Boil the whole together for some time, stirring the ingredients occasionally. The liquor may then be allowed to cool.

With a pointed stick or dibble make holes wherever the soil is infested. Drop the mixture, filling the holes full once or twice.

Fill small vials two-thirds with water, and add sweet-oil to float on the water to within half an inch of the top. Plunge these upright in the ground, leaving only half an inch standing out, near the nest or runs of the ants. The ants will come for a sip and go home to die. No insect can exist with oil stopping up its spiracles, or breathing pores.

Boiling water and arsenic are fatal; coarse sponge dipped in treacle-water, and afterwards dipped in scalding water, will catch thousands.

May be destroyed by a few fresh, unpicked bones being placed for them, or sponges wetted and filled with sugar, or treacle in bottles or pans.

For the American Bee Journal.

The Honey Season in Rhode Island.

SAMUEL CUSHMAN.

My surplus crop so far is even less than last year. That from fruit-bloom was all stored in the brood-nest. Raspberry and white clover failed entirely, and on July 1 the sections were unoccupied. Then the basswood shade-trees about the town yielded considerable honey for about a week, and a few Italian and Syrian colonies that were extra strong stored from 20 to 40 pounds in the sections, and all the others filled up the brood-nests, but did not draw out the foundation in the supers, although the empty combs were filled.

A field of sweet clover now keeps the bees busy; some of it is 8 feet high. I am well pleased with it, and shall sow more of that seed. A field of buckwheat is now coming into bloom, and the bees are not so troublesome or inclined to rob as usual. A nice field of Alsike seemed to fail to secrete honey, as well as white clover.

At my country apiary locust was the first yield to be noticed, and the brood-combs were well stocked. The next yield was from chestnut bloom; this came in with a rush, and boxes were quickly filled. This honey is dark but rich; it does not sell so readily in sections, so I put on as many as possible to get the foundation drawn out. This location is a good one for goldenrod and aster honey, and I shall endeavor to get it all in the sections, if it is a possible thing. Last year our surplus was taken before June 1; this year, all since July 1.

Pawtucket,δ R. I., July 20, 1887.

For the American Bee Journal.

Re-Naming Honey out of the Comb.

G. W. DEMAREE.

There is nothing more unpleasant than to feel that one is misunderstood. When I wrote my article for the *Bee-Hive* I had never seen anything from our Editor's pen on the subject of a proper name for "honey out of the comb," except his comments on my answer to Query 415; and there he proposed to "stick to the name extracted honey until a better name can be found." The difference was, I do not propose to stick to the misnomer if a better name is never found.

My allusion to Bro. Newman's position, in my article for the *Bee-Hive*, I thought was couched in language more complimentary than otherwise, and, behold, he thinks it "ungenerous, unkind and untrue." Does he not know that the word "untrue," as he used it, is a tough word, that most people are disposed to resent? Is it "generous and kind" for our Editor to quote what he has written on the subject since I wrote that article, and parade it as evidence that I have sinned against light, and misrepresented him? I wrote my reply to the editorial on page 291, immediately after I saw it, and although under the circumstances it should have had prompt attention, it was left to take the chances for a place in the paper for over five weeks, and now Bro. Newman quotes his foot-note to my reply as though I had it before me when I wrote my article for the *Bee-Hive* a month previous. I mention these things not that I care anything about them, but to show how easily one can be misunderstood, and how "mole hills" can be swelled into "mountains," when the imagination is set to work on them.

One thing is remarkable, and that is, after I had explained fully in my article on page 421—Bro. Newman's own paper—that I did not offer "liquid" as a substitute for "extracted" as a commercial name for "honey out of the comb," Mr. Newman ignores all I did say in the way of explanation, and refers to "liquid" as my "pet name" for honey out of the comb! After this, no one can be at a loss to know who wears the "war paint."

I have never in any of my articles proposed "liquid honey" as a commercial name for honey out of the comb. In fact, "liquid honey" as a commercial name would be seriously objectionable to me. I have never used the appellation "liquid honey" except in way of explanation, to escape the old bore of a name, "extracted honey."

For several years I have furnished a lady of Jeffersonville, Ind., from 50 to 100 pounds of honey out of the comb, and the packages were always labeled "extracted honey, etc." Well, after all these years, I now have an order from my old customer which runs thusly: "Please send me two three-gallon buckets of pressed honey, etc." *Pressed honey!* Well, that is better than "extracted," because it does not smack of doctored "extracts." Last year my old customer had it "strained honey," this year it is "pressed!" This is only one example out of many. I presume that hundreds of honey-producers know how it is.

For one, I am free from the old bore of a name—I no longer mention the old name "extracted honey" to my customers, and my "morals" are improving. I am anxious to have a suitable commercial name for the article *out of the comb*, and I believe the classification suggested by the Editor on page 435, is the best I have seen, viz: "honey" for the article out of the comb," and "honey in the comb" for the article commonly called "comb honey."

But why not go further, and have it "honey out of the comb" and "honey in the comb?" The one is as expressive as the other, and the diction, if faulty, applies to both alike. Let us have a name that will need no wearisome explanation.

Christiansburg,δ Ky.

[As Bro. Demaree wrote that article for the *Bee-Hive* long before it appeared, that explains matters considerably, and leads to a better understanding. The word "untrue" was intended to apply to the assertion that we had shown our shining metal in defense of the word "extracted" as a name for honey out of the comb. As Bro. D's article was *written* before we had stated our disapprobation of its continued use, that clears the matter up.

As Bro. Demaree is also dissatisfied with the term "liquid" as a commercial name for honey out of the comb, we asked him how he liked "combless honey" as a name for honey out of the comb, and here is his reply: "My objection to 'combless honey,' is that the expression COMBLESS implies that the honey never was in any comb. Just as 'seedless grapes' implies that the grapes never had any seeds, and 'boneless codfish' signifies that the cods were born and lived without bones in the edible parts of the fish."

The argument is good so far as it goes; but it is defective in an important point: it does not, even generally, show that when *less* is added to a word that it means anything else than "*without!*"

On page 490, Mrs. O. F. Jackson says that the air was "full of homeless bees"—does that word indicate that they never had a *home?* We all know to the contrary!

If we say that a man is sick and *friendless*, does that prove that he was always without a friend? Nay, verily!

Or, to demonstrate that the argument of Bro. Demaree is almost *pointless*, and not entirely *faultless*, would any sane person ever assert that a "motherless boy" NEVER HAD A MOTHER?

That argument of Mr. Demaree's is *non-suited*; doubtless it is entirely harm*less*, but it is also use*less* and worth*less!* All will discover, however, that it is not pun-*less*.—ED.]

For the American Bee Journal.

The Season—Over Production.

M. MILLER.

The honey crop in this part of the country is almost a total failure, on account of the dry weather. We did not have enough rain to do the growing crops much good for twelve months and four days. The white clover bloom has come and gone, also the basswood, and neither of them yielded any surplus. We have had copious rains the last few days, but they came too late to do the white clover any good, and just in time to prevent the bees from working on the basswood. There is still a prospect of a fall flow of honey, if the weather continues favorable. The hives are "boiling over" with bees, but very few swarms have issued yet. Even a flow of honey-dew would be accepted this season without much fault-finding.

OVER-PRODUCTION OF HONEY.

Let me name some of the causes of over-production of honey: Eight-frame hives; contraction of brood-chambers; sectional brood-chambers; reversible frames and hives; full-sized starters in the surplus department; and the substitution of sugar syrup in place of natural stores for wintering. All of these tend to throw more honey on the market. It is not all caused by the miserable "one-horse" bee-keeper, but it is all these things combined.

Bee-keepers are taking more and more to cellar-wintering (thereby meeting with less winter losses), and also better protection for those bees left on the summer stands, thereby losing fewer colonies. Bad wintering and poor honey crops are the safety-valves of bee-keeping, and the little one-horse bee-keeper is the one that will continue to lose his bees, generally being satisfied to let the calling alone after a disastrous winter or two.

Dr. C. C. Miller seems to be willing to cease arguing the question of bee-legislation. It is a little like the Langstroth frame controversy some two or three years ago in the BEE JOURNAL; after a long discussion *pro* and *con*, all parties were of about the same opinion as they were at first.

Le Claire, Iowa, July 9, 1887.

Hill's National Builder.

Cause of Drouth and Cyclones.

THOS. E. HILL.

During a recent journey to Europe the passage across the ocean was especially unpleasant, because of fogs, the only consolation in contemplating them being that they represented the work of Nature in drawing moisture from the water, which, wafted inland, fell upon the soil in refreshing rain, gathered in the brooks and rivers and flowed to the sea, to be again thus sent back to freshen and brighten the parched earth.

The speed of our vessel was materially retarded by winds from the west, a common occurrence in the summer season. The fogs and moisture through these winds are driven upon the Continent, where drouth seldom prevails, and particularly do they freshen the verdure of Ireland, and hence the brilliant green of the Emerald Isle.

In reflecting upon this subject, I contemplated the drouth then prevailing in several of the Western and Middle States of the Union. What had they to gather rains from? Alas, what have they? For a generation our farmers have been draining their lands of moisture. They have run their tiling through every slough; they have drawn out the water from every swamp; they have dried up the pond; they have obliterated the beautiful little lake. In doing this they have made such easy and rapid egress for rainfall from the soil as to endanger the homes and farm lands of all the settlers along the great rivers in the southern regions of our country, already inflicting great distress, loss of life, and property equaling in value many millions of dollars—an evil which is growing in magnitude each year.

The result of this wholesale draining of the upper country of water is not only thus disastrous to life and property along the larger streams, from frequent overflow, but there is such absolute drainage of moisture from the earth as to produce severe drouth, accompanied by such intense heat and dryness of atmosphere as results in the hurricane, the cyclone, and innumerable village, prairie and forest fires.

In the early days when the process of evaporation of moisture went forward from the swamps, the ponds and lakes of our Western and Middle States, an extended drouth, with extremely intense heat, was a rare occurrence. In those days sun-stroke was very uncommon, and the cyclone was comparatively unknown. This year we are in the second season of drouth in various portions of the country, while every year brings its devastation from wind, the result of an excessively dry and frequently disturbed condition of the atmosphere.

With the land thus denuded of natural water supply, there is but one course for our farmers to pursue to save themselves from these evils. They may drain their soil, but they should gather the rainfall in ponds and lakes scattered throughout their lands. Instead of running the drains through and out of the swamp, they should lead to an excavation of such size as circumstances will permit, which should be made at a depth of 3 or 4 feet, where the water can gather and will remain throughout the year, quenching the thirst of animals, giving drink to birds, a reservoir in case of fire, a home for fish, a place of beauty on which one may sail the boat, an opportunity for the bath and for teaching the young people to swim. This will yield ice for the family, provide skating for the happy youth in winter time, and moisture, which through evaporation, will pass into the cloud to be returned again through rainfall to the needy earth.

No fear need be entertained of stagnation from water thus held in reserve. Fish will of themselves purify it. Every rain will change it, while, if the lake covers an acre or more in area, the wind will constantly keep it pure. In proof of this, the writer has an artificial lake on his farm, the result of dredging a swamp, which is filled only by rainfall, the water being, in the dryest season, always perfectly clear and fresh.

On the low lands the general abandonment of farms and homes from river overflow will be the inevitable outcome of this water wastage in the high grounds. Such is already the fact, while the expenditure of many millions of dollars by the Government, in the construction of levees and embankments along the great rivers, will be necessary for the further protection of adjoining property. Vastly better that this expenditure be made in holding the water where it is required in the up-country.

Dot the farms of our Inland States with ponds and miniature lakes, and while they will afford health, attraction and pleasure in a thousand ways, they will give us back the uniform rainfall we had in the early settlement of the country, when successive seasons of drouth, forest fires and cyclones were unknown.

[This is one of the serious questions of the age—and should be thoroughly ventilated. It may be that Mr. Hill's theory concerning the cause of drouth and cyclones is correct. At any rate it should be discussed and some means devised to overcome these troubles. They affect bee-keepers as much as any other persons. The bees need water. The drouth dries up the nectar and ruins the prospect for a honey crop.—Ed.]

For the American Bee Journal.

Name for Honey out of the Comb.

THEODORE JOHNSON.

On page 433 the editor suggests the word "honey" for honey out of the comb. Language is made up of words, each of which represents an idea; the word "honey" includes all honeys, in all conditions, and it would be hard, yes impossible, to change it from its general meaning to a specific.

The word "extract" (*v. t.*) means to remove from, or draw out of, and specifically expresses the thing done—when used in reference to removing honey from the comb. Therefore, I can see no inconsistency in the term "extracted honey," for it expresses the truth. Any one getting from it the idea of an "extract" (*n.*) "of honey," needs only to learn the proper use of terms. If there is a less objectionable term, let us have it. I can think of none. To say "extracted honey," is no fraud. A fraud is something that is palmed off for what it is not, and thus deceptive.

If any one buys "extracted honey" for an "extract of honey," it can be no fraud, for they get the genuine article, rightly named. The bee extracts the nectar from the flower cup, and deposits it in the comb; then we extract the honey from the comb, and "extracted" (*p. pr.*) expresses exactly the article, unadulterated, which we offer to the market.

Liquid honey would not do, for soon some "frauds" would be practiced on that, as there are on "extracted;" and then, all honey is liquid until "crystalized."

The same objection could be raised against all expressions relative to all business in life. Just as well raise the objection to "corned beef," because some people think that it refers to beef fattened on corn, instead of the curing of it. It would be better to teach the true meaning of words to those who live in the "rural districts," rather than call them "misnomers." I happen to live on the wild plains of Nebraska, and here I first heard the "terrible misnomer," and I never dreamed of an "extract of honey." But my mother persistently calls my extracted honey, "strained honey;" because she used to strain honey in her early days. Why not say "strained honey," and be done with the "high-sounding misnomer?"

Bower, Nebr.

[It is much easier to *say* "teach the true meaning of words to those who live in the rural districts," than to do it! Besides, those in cities are just as much at fault as the rural population.

It will never do to go back to the name "strained honey"—the word extracted is infinitely superior to that worn out, and (by its association) disgusting word. It reminds us of mashed combs, dead bees, pollen, brood, etc. Oh! no; to return to it would suggest a "washed sow" returning to her wallowing in the mire.—Ed.]

For the American Bee Journal.

Peddling the "Wiley Lie."

J. H HASSLER.

On July 23 I met with one of those fellows that we have read so much about in the Bee Journal, engaged, in part at least, peddling the "Wiley lie." I had just brought in a case of honey and placed it on the counter of our store, when a rather tall and well-dressed man advanced, and after some preliminary remarks addressed to the proprietor, continued: "They are making comb honey now by machinery as natural as that made by the bees; in fact it would be hard to distinguish it from the genuine article."

At this point I interrupted him and disputed his assertion, saying that it was "comb foundation" that was made by machinery, but not comb honey; to which he replied that it *was* comb honey just like that which I had brought in, and that he had seen them make it himself, with his own eyes, and he guessed he knew what he saw!

This was putting it rather too strong for further argument, so I offered to bet $5.00 that there was no such honey made, which offer he quickly accepted—and as quickly withdrew when he saw the money deposited with the proprietor, saying, as he did so, that it would be too much trouble to prove it.

I then offered to bet $100, and pay the expenses of going there and back, if he would take me to the place where such honey was manufactured. This silenced his "battery" until I had gone out, when he told the boys that if he only would have had $100 he would have taken that little $100 of mine with him. Wasn't this lucky for me?

I have since learned that his name is Edward Pond, and that he is a traveling salesman for Bush, Simmons & Co., 241 Monroe St., Chicago, Ills.

De Pue, Ills.

[The Chicago bummer (always so smart) was for once "bluffed" successfully. He had read the Wiley *lie*, and thought he could "bluff" the "boys" in "the country." He was like the Chicago "clergyman" who said that he had seen it made, he knew where the manufactory was, etc., but when pressed for the proof, was obliged to acknowledge that he had no personal knowledge of it at all, and was one of Wiley's "dupes."

Let bee-keepers everywhere watch for chances to silence "the multiplying tongue of slander and falsehood" about the manufacture of comb honey! We never did "bet," and do not like the plan, but would advise the offering of a good sum of money, and pay all expenses, to be taken to the place where comb honey is made by machinery, filled with glucose and sealed with hot irons, and witness the working of the machinery, etc. This is about the only way to make Wiley's "army" to cease to repeat such villainous calumnies. Mr. Hassler did just the right thing, and is a pattern in this respect for others.—Ed.]

American Apiculturist.

Queen and Drone Traps.

DR. C. C. MILLER.

I have never seen any very full description of the workings of the Alley queen and drone trap. This year I have been trying them. I do not know that they serve their purpose any better for being neatly made, but I must confess I admire the workmanship of these traps. This season having been one of utter failure of the honey harvest, I have not been able to try them to the fullest extent, but will tell what I know.

When first put on a hive, the workers show some little excitement at the hindrance to their usual free passage; soon they become accustomed to passing through the perforated zinc, and mind it little. Sometimes they get into the upper part of the trap, and are annoyed by not being able to get out through the wire-cloth, not having sense enough to go at once to the perforated zinc above, where they can easily get out. As a trapper of drones the success is perfect. Of course it is better to have all worker comb in a hive and rear no drones only where they are wanted, but with the utmost vigilance some drones will be reared.

The bees will build drone-cells in out-of-the-way places. If you are not careful, mice will make holes in the combs in the hive in winter to be filled up with drone-comb; and if given all worker foundation, some of it will be sometimes changed to drone, so that, after all, some drones are apt to be present, and I cannot imagine any better way to get rid of such than by means of a drone-trap.

On coming out of the hive, the drones are not long in finding their way through the cone into the upper part of the trap, and then they are out of the way of the workers' full passage. The trouble is that the bee-keeper must empty the trap every few days, or the dead bodies of the drones make a bad stench. If he does not object to the labor, the tin slide might be taken out each day after swarming time is over for the day, letting the drones come out themselves. Or, if there is no danger of swarming, or if he does not care to catch the queen in case they do swarm, the tin slide could be left out altogether, and then you have perfection in the way of destroying drones, providing there are no other hives without traps where the drones may be allowed to enter.

I was most anxious to try the traps as queen-traps, but although I had them on six of my strongest colonies, never a swarm issued, owing to the extreme drouth. I had about 4 inches of the south end of the trap covered with thin board, according to Mr. Alley's instruction, so that if a queen was caught she would be in the shade. It is a pretty clear case that if a swarm issued, the queen would be caught, the same as the drones, in the trap. For those who cannot be with their bees in the middle of the day, this ought to work "like a charm," and perhaps it would work just as well if the bees were unseen for several days. If, however, the trap should be left on until a young queen hatches, there might be "trouble in the camp." I do not like to have so little ventilation as the trap allows. That might be remedied by having ventilating space at the entrance or elsewhere covered with perforated zinc.

I do not full understand the object of the hole that, when unclosed, allows passage from the upper to the lower part of the trap. I have kept mine closed, not knowing of what use it could be open. Will Mr. Alley tell us about this?

Marengo, ♁ Ills.

Directions for use are sent with each trap, but in Dr. Miller's case we think none was sent. Concerning the object of the hole which Dr. Miller does not understand, we quote the following from the directions:

"If you examine the trap, you will notice a small hole at one end of the division-board. This is provided so that the queen can return to the hive in case a colony swarms during the absence of the bee-master. If swarming is desired, a nail should be pushed in through the side of the trap, thus closing the aperture and preventing the queen from going out. A nail is sent with each trap for this purpose."

The directions also say:

"If the trap does not quite cover the entrance, close the open part by nailing a piece of wood or perforated zinc over it. The entrance to the hive should be as long as the opening in the trap, and not less than half an inch high."

I am strongly in favor of a large entrance to the hive, whether a trap is used or not.

When the directions are followed, the hive will be amply ventilated, and there will be no trouble about the trap working satisfactorily in ninety-nine cases out of one hundred.

Here let me say to those who use the traps, that the opening in the small end of the cone tube through which the bees pass into the trap should be about ⅜ of an inch in diameter. It is easily and quickly enlarged by anything that is sufficiently small at one end to enter the tube. I use a butt end of a bit of any size which is the handiest thing I know of.

When large numbers of drones are trapped, the trap should be cleaned out. Early in the morning is the best time for that work. It is not necessary to clean the trap oftener than once a week, as the drones do not die for several days after they are trapped.—HENRY ALLEY.

For the American Bee Journal.

Caves of Honey and Bees.

HENRY K. STALEY.

The following is an article which I clipped from the Cincinnati *Weekly*. I think it will be interesting to many of the readers of the AMERICAN BEE JOURNAL. Albeit, that it contains some hyperbole where it says that the "barriers" between the different families of bees were "ingeniously-constructed walls of wax, nearly half an inch in thickness." It will interest all those who own caves suitable for bees and honey.

Pleasant Ridge, ♀ O.

HONEY BY THE TON.

"Joseph R. Haning, a young farmer living near Littleton, is the hero of Morris county to-day. His discovery of an odd and wonderful cave full of thousands of pounds of rich honey is the talk of North Jersey. The cave is just off the main road from Parsipany to Morris Plains. Haning was standing under the big bluff the other day, and, happening to look up, perceived a heavy mass of honey-bees 30 feet above him. A few feet further down the bluff was another mass of bees. The two swarms buzzed so loudly that it sounded as though a high wind was blowing. It did not take Haning long to perceive that the bees were passing in and out of huge holes in the rocks, and his curiosity then turned into excitement, and he started for some friends in order to investigate the strange sight. He got two young farmers, and they went to the top of the rock to see if they could find an opening. They had a lot of powder with them, and attempted to blast an opening. Every time there was a blast, millions of angry bees swarmed out of the recesses of the rocks, until the farmers, even with bee-hats and thick clothing on, found it dangerous to proceed.

"New plans were then adopted. Ladders were brought and a charge of powder was fired into the rocks, a few feet beneath where the bees settled. Then the explorers went home and waited until the next afternoon before resuming their search. They discovered that they had made an opening through a shell-like wall into a hollow beyond. A rich stream of golden fluid was trickling down the face of the rock. This showed that some of the honey-combs had been broken. Brimstone was then pushed into the hole and then ignited. The smoke soon began to drive out the bees by the thousands. But the honey could not be obtained as yet, owing to the hive of solid rock. Then young Haning thought of dynamite. He obtained some cartridges, and the first cartridge that exploded bored a hole in the top of the rock that revealed the entrance to what was apparently a small but empty cave. Lights and ropes were brought, and the three farmers descended into an irregularly-shaped cave, the size of an ordinary room. On all sides the walls were covered with great masses of honey-comb several feet thick. The honey was of various colors and qualities. It had been gleaned from the whitest of buckwheat blossoms to the reddest clover heads. On several spots the comb ran back like veins into rocks where the bees had filled up the interstices. The honey, in many places, was very red, and was spoiled by age and moisture. But in the main portion of the cave the honey was in perfect condition.

"There was a curious feature about the deposit. The cave had apparently been divided up by several swarms of bees, and they had erected barriers between the territory they had pre-empted and the other swarms. The barriers were ingeniously-constructed walls of wax, nearly half an inch thick. The deposit of honey is very valuable. Mr. Haning thinks there are at least several thousand pounds that can be removed and sold at good prices. The three discoverers are keeping the exact locality of the cave a secret until they can get rid of the valuable honey."

☞ The stark County Bee-Keepers' Society will hold its next meeting in Grange Hall at Canton, O., on Tuesday, August 9, 1887.

MARK THOMSON, *Sec.*

Local Convention Directory.

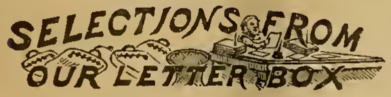
1887. *Time and place of Meeting.*

Aug. 9.—Stark County, at Canton, O.
Mark Thomson, Sec., Canton, O.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.



SELECTIONS FROM OUR LETTER BOX

Honey as a Medicine for Lung Diseases.—Geo. M. Thomson, Grand Junction,⊙ Iowa, on July 25, 1887, writes:

I enclose a prescription which I received from Dr. J. D. Kirby, of Grand Junction, Iowa. He uses it for lung troubles, such as colds, and to give relief to consumptives. I know it to be valuable, and worthy of a place in "Honey as Food and Medicine." It is as follows:

Extracted honey, 4 ounces; gin, 2 ounces; chloroform, 1 drachm; sul. morphia, 1 grain. Mix. Dose for adult, a tea-spoonful every 2 hours.

Honey here is almost a total failure. With plenty of rain we will get some fall honey. We have had but little increase. Oats are a short crop. Corn may be a good crop, but it needs more rain.

Very Poor Season.—Byron Benton, Bronson,♀ Mich., on July 25, 1887, says:

The season for honey has been very poor. Bees swarmed fairly well up to July; since then they have stored enough to live on. Some have stored a little in sections. Many colonies, to survive the winter, will have to be fed. Bees now are about as quiet as late in the fall.

Honeyseim for Extracted, etc.—L. Hammersmith, Middle Amana,⊶ Iowa, on July 16, 1887, writes:

I notice that a better name for extracted honey is wanted. In German we call it "honigseim;" but the translation thereof, as far as I can find, is "drops of comb honey," which will hardly answer, although it is nothing else. Why not, if others can find no better translation, adopt this name? Every American knows what an iceberg (ice-mountain) is, also other words taken from foreign languages; they will soon learn that honeyseim is the finest of honey, as dark and inferior honey cannot be called such, although it may be extracted.

We averaged, in 1886, in 3 apiaries, 230 lbs. per colony, spring count; in 1885, 150 lbs.; this year we will not have quarter of a crop. White clover was a total failure an account of the drouth. The bees worked hard on red clover, but that was cut for hay after being a few days in bloom. The man that cut it told me that he never saw the like, for he could hardly take his horses into the field, on account of so many bees. Linden yielded nothing, as the caterpillars had eaten the leaves and blossoms. Now the second blossoms of clover are opening, and honey is coming in, which will sell as honeyseim.

Mr. G. Knipler, of Parnell, Iowa, write this to me, of his Italian bees: "Those 7 colonies into which you put Italian queens for me last fall, are by far the best of all my bees. I took off one case of honey, and another one is nearly full; while the blacks have no surplus. The Italians bring in honey when blacks do nothing. I am very thankful to you, as I could not have introduced the queens myself."

An Apiary Plundered, etc.—Mrs. O. F. Jackson, Sigourney,⊸ Iowa, on July 23, 1887, writes:

Bees are doing poorly in this part of Iowa. White clover yielded but little honey, and we had very little from basswood. It has been very dry this summer, but we are having nice rains now, and I hope to get some honey from the buckwheat yet. On July 9 I had 4 colonies taken out of my apiary; the next morning we found one hive in a neighbor's field; the hive broken and the bees scattered in the grass and by the roadside. It was anything but pleasant on that bright Sabbath morning to see the apiary fence down, the hives scattered, and the air full of homeless bees. I do not know what is best for me to do in this case.

[If there is any likelihood of a repetition it might be well to keep a watch over the apiary, or use an electric alarm. If you find the desperado, prosecute him, and let him have the full benefit of the penalty of the law.—Ed.]

Bees Dying, etc.—Wm. Robson, Rolla,⊙ Mo., on July 25, 1887, writes:

Seventeen out of 33 colonies are losing bees nightly in various quantities, as seen on the alighting-boards in the morning. Four of the 17 colonies are rapidly decreasing. The first I noticed of the bees dying was about eight days ago. The death-rate is alarmingly on the increase. The bees, as they crawl out of their hives, appear in a trembling, jumping agony, crawling a few feet from the entrance of the hive, turn over on their backs and die. What makes it appear more strange to me is, the dead and dying are all young bees, such as nurses, comb-builders, and those just emerging from their cells. The season began in quite a promising manner, colonies building up very fast on fruit-bloom, making ready for white clover, but from some cause (it might have been the cold last winter) there was but very little nectar secreted in the blossoms. We are now having very dry weather. Buckwheat yields no honey. Bees are gathering some pollen from the corn, sumac and pleurisy-root; the last named is nearly done blooming. The iron-weed has been in abundance. I cannot think highly of iron-weed as a honey-plant. The surplus honey crop will be easily managed this season here; farmers will not be peddling with buckets to get a buyer, and I doubt if they get honey enough to know how it will be relished on warm bread.

Honey Crop very Light.—H. D. Cutting, Clinton,⊸ Mich., on July 25, 1887, says:

Prof. Cook tells me that he cannot attend the Chicago convention unless it is held in November. He cannot leave his classes before. The honey crop in this locality is very light. The Chapman honey-plant has done well for the extremely dry weather.

No Surplus Honey.—Geo. W. Riker, Russell,♀ Iowa, on July 25, 1887, says:

As yet I have taken no surplus honey this season, on account of its being too dry. Prospects are poor for any honey this fall. I have 120 colonies, and I hope to get as many pounds of honey.

No Honey and no Swarms.—G. W. Johnston, Holden,⊷ Mo., on July 21, 1887, says:

I commenced in the spring with 50 colonies of Italians bees, and I have not taken any honey at all, and no prospects for any. I have to feed nuclei colonies. There have been no swarms at all in this county, that I have heard of.

Better than an Average Year.—D. L. Shapley, Randallsville,⊙ N. Y., on July 25, 1887, says:

I have not taken any honey from the hives yet, but I am going to do so as fast I can. Bees have not stored any in the sections since July 20, and will not gather any more than they will consume the remainder of this season. I think that it has been better than an average year for bees in this vicinity. I can make a fuller report later in the season.

Sure of Half a Crop.—Fayette Lee, Cokato,⊙ Minn., on July 24, 1887, writes:

I have taken 35 pounds of honey per colony so far, and increased my apiary from 75 to 96 colonies. There is plenty of honey for winter in the brood-chamber; so I have half a crop so far. The bees are getting a little honey in the morning from melons and corn blossoms. I got 50 pounds of comb honey each from some new colonies.

Bees have done Nothing.—S. H. Harrison, Mankato,♂ Kans., on July 19, 1887, writes :

Our bees have done nothing this year—have not made their living ; but it is not their fault, however. On May 16 we had another severe hailstorm, which destroyed all our buckwheat and early bloom. The bees were compelled to wait for "buckbrush" to bloom (about July 11), which yields but little honey. Our harvest generally commences about Aug. 1 to Aug. 15, when heart's-ease comes into bloom. My 22 colonies are getting ready for it. I have not had a swarm issue so far this season. I have given them surplus cases for room, and the hives are full of bees.

Cure for Bee-Stings, etc.—Denison Hoxie, Wautoma,⊙ Wis., on July 20, 1887, says :

Try kerosene oil for bee-stings ; it is the best remedy—no swelling follows. We had no clover honey, but a 7 days' flow of basswood. Colonies are built up finely for buckwheat, our main honey crop here.

The Chicago Convention.—L. Highbarger, of Adaline,♂ Ills., on July 25, 1887, records his vote on the time for holding the convention, thus :

Count my vote for October for holding the Chicago Convention. Any time will suit me during the Exposition or Grand Encampment and Jubilee.

[As this is the *only vote* yet received in favor of a change from the published time for holding the Convention, it will *not* be worth while to continue any longer in *uncertainty*. There have been many votes against a change, and in favor of the last week of the Fat Stock Show, when all railroad fares will be at the lowest, and at which time it was first appointed. Let it, then, be understood that the Convention will be held at Chicago, on Wednesday, Thursday and Friday, November 16 to 18, 1887, and we hope that it will be largely attended. We gave the fullest latitude for canvassing the question, and now as the "motion" does not meet with any support, it is hereby dropped.—Ed.]

My Experience in Bee-Keeping.—J. E. Brooks, Howell,∽ Mich., on July 22, 1887, writes:

I commenced with 10 colonies of bees, and they began swarming on June 5, and stopped on June 30. I had 22 swarms, and 2 or 3 absconded. About one-half of the colonies have filled the hives, but I have had only 20 pounds of comb honey, taken from the old colonies. It has been very dry here, but we had a heavy shower last night that will help late corn and potatoes ; early potatoes are past help. I have sown some to Alsike clover this summer, but the hot sun has killed most of it. I will sow 15 or 20 acres of Alsike clover with timothy about Sept. 1, as my neighbor says that it is more certain to "catch ;" as it is sandy soil, and the hot days during July and August burn it up. I shall sow a little rye with it to protect it until it gets a root, and also to hold the snow in winter. The rye is no detriment to it for pasture or hay next season, as the stock will eat the rye and let the small grass get rooted. I notice quite a discussion about the word "extracted." I would suggest "drawn" honey ; although any of the words will suit me, for it looks as though I will never be troubled with any surplus honey to sell. My bees are now killing off the drones, and it is a sight to see them in the evening, bringing out the drones and tumbling off of the steps with them. I supposed they were robbing until I looked more closely and found them only leading out the drones.

Bee-Keeping in Knoxville, Iowa.—H. J. Scoles writes as follows from that place on July 20, 1887 :

Below is a copy of an ordinance passed by the Town Council of this place. The blocks are 240x256 feet, with an alley of 16 feet running through the centre of that, so that it is but 60 feet from a street or alley. One man moved his bees out of the corporation, and I moved mine to a less public place. With these exceptions, there has been no attention paid to it. Bees have done but little this season ; they will not store one-tenth of a crop, on account of the drouth. Here is the ordinance :

Sec. 1. Be it ordained by the City Council of the city of Knoxville, Iowa, That it shall be unlawful to keep ten stands of bees or less, nearer to any street or alley than 50 feet thereof. And it shall be unlawful to keep any greater number of colonies nearer than 100 feet to any street or alley.

Sec. 2. Any person violating any of the provisions of this ordinance shall, on conviction, pay to said city a fine not to exceed $50, and cost of prosecution, nor less than $2 and cost of prosecution, and may be compelled by order of the Mayor, to remove said bees, and on failure to comply with such order, the Marshall shall execute the same, and the costs shall be assessed against the person convicted, and judgment therefor shall be rendered against him in favor of the city, and execution issued thereunder.

Sec. 3. This ordinance to be and remain in force from and after its publication according to law.

Approved March 7, 1887.

Reception to Mr. Cowan.—Geo. E. Hilton, of Fremont,⊶ Mich., Presidint of the Michigan State Bee-Keepers' Association, on July 22, 1887, writes :

Friend Newman :—By all means let us give Mr. Cowan and lady a grand reception ; the Canadians will undoubtedly give him one, and "are we not brethren ?" I would suggest that you learn as soon as possible the extent of Mr. Cowan's time here, and if he cannot possibly stay until our November meeting, then change the date so that it will come within his stay with us. Chicago could accommodate all the Western bee-keepers, and many of the Eastern members could meet with our Canadian brethren. I really hope this will meet the approval of the officers and members generally of the North American and Northwestern Bee-Keepers' Societies. What a grand rally and glorious time we would have.

[From present indications it would seem that Mr. Cowan does not intend to stay long enough in America for us to arrange in advance for a general reception. All we can now state is, that last week he was visiting apiarists in New England. He intends to go to Quebec, Montreal, Ontario, and then continue his journey West as far as Chicago, but no time has yet been set for his Western visits.—Ed.]

Honey Season Nearly a Failure.—G. W. Demaree, Christiansburg,♂ Ky., on July 25, 1887, says :

We have had one of the very poorest honey seasons here. Prevailing north and east winds, with cool nights, in the early part of the season, followed by drouth and amazingly hot weather since, has made the honey season well-nigh a failure. My small honey crop is nearly all sold at 15 cents for honey in the comb, and 12½ for honey out of the comb ; taken right from my honey store-rooms.

Poorest Season for Several Years.—Fred Bechly, Searsboro,⊙ Iowa, on July 22, 1887, says :

This is the poorest season for honey that we have had for several years. I commenced the spring of 1887 with 20 colonies of bees, increased them to 26, and got 280 pounds of extracted honey so far. Bees are all strong and in fine condition for the fall crop—should there be one. As new names for extracted honey are in style, how would "slung" honey do ; and "honey slinger" for honey-extractor ?

[It will not do at all.—Ed.]

Solving the Name Problem.—J. J. Tucker, Arrow Rock,⊙ Mo., on July 25, 1887, writes :

This is my solution of the name problem : Let extracted be called "honey," or "pure honey ;" then we will have honey, and comb honey, to distinguish the comb from the extracted honey. Honey taken from the comb by the extractor is nothing but honey pure and simple, hence the appropriateness of the name. Honey or pure honey, and comb honey, it seems to me, will suit as well or better than any name yet proposed. This has been a hard season on bees. There has been plenty of white clover, linden and other honey-flora, but little or no nectar.

National Bee-Keepers' Union.—Wm. Muth-Rasmussen, Independence, ⊶ Calif., on July 22, 1887, writes :

Enclosed I send $1.25 to pay my dues to the "Union" for the coming year. The Union has done so well, that I think it only just to re-elect the officers, one and all, provided they will accept re-election. I must thank the Manager, personally, for the energy and interest he has shown in the cause, and I hope he may not weary in the good work. I feel proud of the privilege of being a member of the Union, and can only pity those who, from indifference or for mercenary purposes, stay out. Though I may never have occasion to call on the Union for aid, I regard the trifling dues as one of the best and safest business-investments a bee-keeper can make. As the General Manager says that the funds on hand will only about pay expenses for suits not yet decided, I have my doubts if it will be wise to decrease the annual dues; but I will rely upon his judgment in that regard.

[The only object in decreasing the annual dues to one dollar, beginning Jan. 1. 1887, is to increase the membership, and that will increase the funds at the same time.—Ed.]

Partridge Pea, etc.—Wm. Crowley, Redwood Falls, ♀ Minn., on July 24, 1887, writes :

I send a sample of a plant that grows along the streams here in abundance. It blooms early in July, and continues in bloom until frost. Please give its name and value as a honey-plant as to quality and quantity. Bees work on it freely all through the season. I put 20 colonies out of the cellar last spring, about one-third of them being weak and queenless. I have increased them to 51 colonies, and have taken 900 pounds of combless honey, and 100 pounds of comb honey in one-pound sections from linden bloom, which commenced on June 27 and lasted two weeks. We usually get as much honey from goldenrod and other fall flowers as from linden bloom. If we do not get rain soon we will not get much honey in the fall.

[The plant is partridge pea (*Cassia chamæcrista*), and abounds in nectar. Bees and other insects visit it in great numbers. The flowers are very attractive. At the base of each compound leaf there is a curiously stalked, button-shaped gland, which also excretes a sweet fluid, which attracts the bees.—Ed.]

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the Bee Journal, and will send two or more free of cost to any one who will use them, and try to get up a club.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
Business Manager.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices : 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

"Rough on Rats" kills hen-lice and potato-bugs. See advertisement in another column.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents ; if a whole piece of 12 yards is taken, $2.25 ; 10 pieces, $20.00 ; if ordered by mail, send 15 cents per yard extra for postage.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the Bee Journal.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

We Supply Chapman Honey-Plant seed at the following prices : One-half ounce, 50 cents : 1 ounce, $1 ; 2 ounces, $1.50 ; 4 ounces. $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

The Hancock County Fair will be held at Greenfield, Ind., on Aug. 23 to 27, 1887. Honey and bee exhibits are desired. Send for a Premium List. Address the Secretary, Charles Downing, Greenfield, Ind.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—We quote: Extracted, 5@7c., according to quality and package. New honey in 1-lb-sections brings 15@16c., and one nice lot sold for 17c. Comb honey crop of 1886 is exhausted.

BEESWAX.—22c. R. A. BURNETT.
July 20. 161 South Water St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 14c.; dark 2-lbs., 11@12c. choice white 1-lbs., 16@18c.; dark 1-lbs., 12@14c. Calif. white 2-lbs., 14c.; extra C 2-lbs., 12@13c.; C 2-lbs., 10@11c. Extracted, new crop, choice white, 8@10c.; dark, 5@7c ; Calif. white, 8c.; amber, 6@7c.

BEESWAX.—20 to 22c.
July 28. HAMBLIN & BEARSS, 514 Walnut St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, ought to bring 15@16c. Extracted not wanted. Waiting for the new crop, but it is very short and none ready.

BEESWAX.—28c.
July 26. A. C. KENDEL, 115 Ontario St.

DETROIT.

HONEY.—Some new white comb sold at 12½ cts., but prospects for better prices are good.

BEESWAX.—23c.
July 20. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, 5¼@5½c; light amber, 5@5¼c.; dark, 4½@5c. Comb, 2-lbs., 10@14c.; 1-lbs., 10@15c. Market firmer and prices improving.

BEESWAX.—20@23c.. Market firm.
July 19. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 8@10c. Strained, in barrels, 3½@4c. Extra fancy, ½ more than foregoing prices. Extracted, 4¼@4¾c. Market dull.

BEESWAX.—Steady at 21c. for prime.
July 11. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4½@5c.; amber and candied, 4¼@4⅜c. Receipts light; poor crop.

BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice new 1-lbs., 14@15c.; old 1-bs., 12@12½c.; 2-lbs. not in demand, 10@11c. White extracted in kegs and barrels, 7@7½c.; in small tin cans, 7½@8c.; dark in kegs and barrels, 6@6½c.; in small tin cans, 6½c. Market ready for new crop.

BEESWAX.—25c.
July 21. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—We quote : White clover 1-lbs., 10@12 cts.; dark, 9 to 10c. White clover 2-lbs., 10 to 11c.; dark, 9 to 10c. Extracted, 5 to 6c. in small way.

BEESWAX.—17@20c.
July 14. CLEMONS, CLOON & CO., cor 4th & Walnut

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C.F.MUTH & SON, Freeman & Central Av.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales very light. Fancy white extracted in good demand, but supply limited.

BEESWAX.—26 cts. per lb.
July 11. BLAKE & RIPLEY, 57 Chatham Street.

* * *

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 cents per lb. Orders solicited.

Advertisements.

BY RETURN MAIL!

SIX Warranted Italian Queens	$5 00
Fourteen Warranted Italian Queens	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

ROUGH ON RATS
TRADE MARK
DON'T DIE IN THE HOUSE

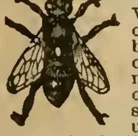
Gone where the Woodbine Twineth.

Rats are smart, but "ROUGH ON RATS" beats them. Clears out Rats, Mice, Roaches, Water Bugs, Flies, Beetles, Moths, Ants, Mosquitoes, Bed-bugs, Insects, Potato Bugs, Sparrows, Skunks. Weasel, Gophers, Chipmunks, Moles, Musk Rats, Jack Rabbits. Squirrels. 15c. & 25c.

HEN LICE.

"ROUGH ON RATS" is a complete preventive and destroyer of Hen Lice. Mix a 25c. box of "ROUGH ON RATS" to a pail of whitewash, keep it well stirred up while applying. Whitewash the whole interior of the Hennery; inside and outside of the nests. The cure is radical and complete.

POTATO BUGS



For Potato Bugs, Insects on Vines, Shrubs, Trees, 1 pound or half the contents of a $1.00 box of "ROUGH ON RATS" (Agricultural Size) to be *thoroughly* mixed with one to two barrels of plaster, or what is better air slacked lime. Much depends upon thorough mixing, so as to completely distribute the poison. Sprinkle it on plants, trees or shrubs when damp or wet, and is quite effective when mixed with lime, dusted on without moisture. While in its concentrated state it is the most active and strongest of all Bug Poisons; when mixed as above is comparatively harmless to animals or persons, in any quantity they would take. If preferred to use in liquid form, a tablespoonful of the full strength "ROUGH ON RATS" Powder, well shaken, in a keg of water and applied with a sprinkling pot, spray syringe or whisk broom, will be found very effective. Keep it well stirred up while using. Sold by all Druggists and Storekeepers. 15c., 25c. & $1.
E. S. WELLS. Chemist, Jersey City, N. J.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ₩ lb.; retail. 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St,, Philadelphia, Pa.
31A13t

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt Vernon. Linn Co., Iowa.

A POSITIVE FACT!

QUEENS by return mail from the old and reliable

KNICKERBOCKER BEE-FARM,
(Established 1880).

Warranted, $1.00 Tested, $2.00.

☞ Special rates on large orders. Circular giving description of our BEES, free.

Address, KNICKERBOCKER BEE-FARM,
31Ctf PINE PLAINS, Dutchess Co., N. Y.

WANTED,

ALL the Bee-Men who see this advertisement to send us hundred pounds of 1-lb. and 2-lb. sections of White Comb Honey, as sample, by Express, stating quantity and price for same. Cash, delivered in Kansas City. **CLEMONS, CLOON & CO.,**
Cor. 4th & Walnut, Sts., KANSAS CITY, MO.
30A4t

PRICES REDUCED!

ONE Warranted Queen	$ 75
Six " Queens	4.00
Two dozen " "	15.00
Select Tested Queen	1.50

☞ Orders filled by return mail.

Address, **J. T. WILSON,**
31Dtf NICHOLASVILLE, KY.

HURRAH FOR THE FAIR!

ARE you going to exhibit, and develop the home market? You will find our brilliant CHROMO CARD a power to extend reputation. This beautiful Card is printed in 8 colors, full of instruction and amusement.

Give the same enterprise to SELLING HONEY, that your merchant does to selling calico, and the Home Market will take it all.

I also have for sale a superior strain of

ITALIAN QUEENS

described in my Circular.

Address, **J. H. MARTIN,**
4C1y HARTFORD, N. Y.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly,* to

A. I. ROOT, Medina, Ohio.

HEAD-QUARTERS IN THE SOUTH

FACTORY OF

BEE HIVES, &C.

Early Nuclei & Italian Queens.

☞ Ninth annual Catalogue now ready.
5Ctf **PAUL L. VIALLON,** Bayou Goula, La.

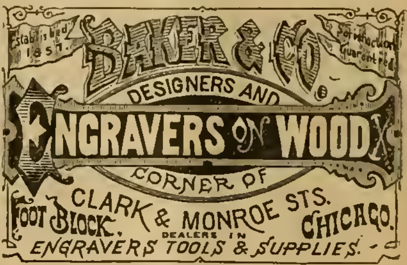
REWARD!

TO WHOM IT MAY CONCERN:

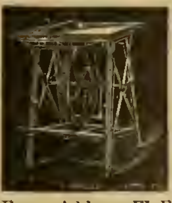
I **HEREBY** offer $1.00 per ratio for every one hundred feet of wire-cloth, to any one who will find parties purchasing my Patent Wire-Cloth Separator from unauthorized dealers—until further notice.

Bee-keepers will save money, and perhaps annoyance, by sending for my Descriptive Circular, before purchasing.

Address, **N. N. BETSINGER,**
9C6t MARCELLUS, Onondaga Co., N. Y.


Established 1857.
BAKER & CO.
Satisfaction Guaranteed.
DESIGNERS AND
ENGRAVERS ON WOOD
CORNER OF
CLARK & MONROE STS.
FOOT BLOCK.
CHICAGO.
DEALERS IN
ENGRAVERS TOOLS & SUPPLIES.

BARNES' FOOT-POWER MACHINERY.



Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

JUST PUBLISHED,
"PRACTICAL TURKEY RAISING"

By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL Publisher, 69 Dearborn St., Chicago, Ill.
18Ctf

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

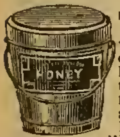
A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street. CHICAGO, ILL.

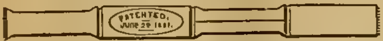
Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

UNTESTED DAUGHTERS from one of Doolittle's best Queens, only 50 cts. each. Tested Queens, $1.00 each.
26Atf **I. R. GOOD,** Nappanee, Ind.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.


PATENTED, JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS received many kind letters in regard to the excellency of his little book, **"The Production of Comb Honey;"** and it is with pleasure that he publishes the following "eample:"

ST. LOUIS, MO., April 16, 1887.

FRIEND HUTCHINSON.—Your little book has been forwarded to me from home, with the statement that "It has been read by every member of the family;" and, judging from the numerous underscored lines and bracketed passages, it was thoroughly appreciated.

I have been experimenting somewhat in the same direction, and while my experiments were by no means so thorough and exhaustive as yours, they make me an earnest supporter of the beliefs and practices laid down in your book, which I value above price, and can endorse every word of it. Sincerely yours, DWIGHT FURNESS.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
31Atf

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

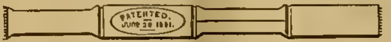
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

"Boss" One-Piece Sections,

MANUFACTURED BY

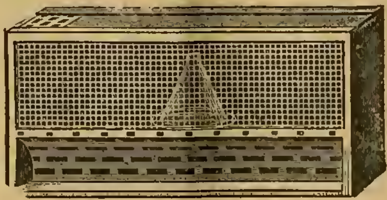
J. Forncrook & Co., Watertown, Wis


PATENTED, JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

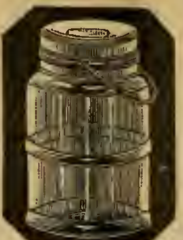
Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent to all who apply.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of	honey,	per dozen,	.....	**$1.60**
" 2 pounds	"	"	.....	**2.00**
" 3 "	"	"	.....	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BY RETURN MAIL.

ADEL, IOWA.

H. ALLEY.—I must say that the two Queens you sent me, are the largest and finest Queens I have ever received. They are simply perfection.
DR. W. R. CULLISON.

Warranted, $1; Selected, $1.25; Tested, $1.50

HENRY ALLEY,
29Atf WENHAM, MASS.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

ITALIAN Queens by return mail, Tested 90c.; Untested, 50c., or $5.50 per dozen.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

DR. TINKER'S SPECIALTIES.

THE finest **WHITE POPLAR** SECTIONS and the best **PERFORATED ZINC** ever offered to bee-keepers. Our new machine makes 50,000 perforations in a day. We also claim the finest strain of BEES for comb honey—the Syrio-Albinos. Price-lists of **QUEENS** and Supplies free. Samples of sections and zinc, three cents.

Address, **DR. G. L. TINKER,**
.27Dtf NEW PHILADELPHIA, O.

Beautiful Italian Queens.

J. **F. WOOD** wishes to inform his former friends and patrons, that he is now filling orders promptly for those GOLDEN ITALIAN QUEENS that have given satisfaction to every customer for the past two seasons—at the low price of $8.00 per doz.; single Queen, 75 cts. *I use no lamp-nursery.*

☞ Do not fail to send for descriptive Circular; if you have not my 1886 Circular, send for that too.

JAMES F. WOOD,
29Dtf North Prescott, Mass.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 *oz.* **Glass Jars** ***$5.25*** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case. Send for Catalogue.*

A. O. CRAWFORD,
Box 428. **South Weymouth, Mass.**
21D10t

CARNIOLAN QUEENS ONLY;

BRED in large apiary of Carniolan Bees, from Benton Select Imported Stock—$1.00 each. Carniolans are the gentlest and best honey-gatherers known. Send for Circular describing Carniolans. (Mention this paper.)

S. W. MORRISON, M. D.
25Dtf Oxford, Chester Co., Pa.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen..............................	$0.80
6 Queens..............................	4.50
12 Queens..............................	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Aug. 10, 1887. No. 32.

Dart Fairthorne, in *Vick's Magazine* for August, gives a poem on the "Message of the Flowers," of which these are the first and last stanzas :

O, roses, blooming royally, you bring me, in your splendor,
A message of the summer-time—an idyl of the dew ;
A glimpse of all things beautiful—a hint of all things tender,
A dream of all things wonderful, all fair, and sweet, and true.

And never yet did man go search the flower pages over,
Or pry between the perfumed leaves like bee or humming bird,
But there be found the treasured sweets, and there he might discover
A message of the better life, though lacking voice and word.

◆

Make your Plans for the coming day, in the previous evening, and then go to work according to the plan made without hesitation or change.

◆

Mr. and Mrs. T. W. Cowan were entertained on Tuesday of last week by Capt. J. E. Hetherington, at Cherry Valley, N. Y. Mr. P. H. Elwood and Mr. J. Van Deusen joined the company, and all spent a pleasant day in the Captain's apiaries.

◆

The St. Joseph, Mo., Inter-State Exposition will be held on Sept. 12 to 17, 1887. Mr. J. G. Graham, Agency, Mo., is the superintendent of the Apiary Department, in which $267 in premiums are offered, besides diplomas.

◆

Will you Exhibit at the Fair? If so, we will supply you all the copies of the BEE JOURNAL that you may desire to distribute to the bee-keepers you may meet there. We also have colored posters to put up over exhibits of honey, wax, supplies, etc. Send for them early, so as to be sure to have them on hand in time. They will cost you nothing, but we should like to have you get up a club for the BEE JOURNAL, if you can possibly do so.

The National Bee-Keepers' Union.—The vote for officers resulted as follows :

For President.—James Heddon, 124 ; Prof. Cook, 5 ; G. M. Doolittle, 5 ; A. I. Root, 3 ; C. F. Muth, 3 ; scattering and blanks, 5.

For Manager, Secretary and Treasurer.—Thomas G. Newman, 140 ; blanks, 5.

For Vice-Presidents.—G. M. Doolittle, 118 ; Prof. A. J. Cook, 118 ; Dr. C. C. Miller, 118 ; A. I. Root, 112 ; G. W. Demaree, 107 ; James Heddon, 11 ; W. Z. Hutchinson, 8 ; Charles Dadant, 7 ; scattering (three or less), 30.

It will be seen therefore that all the officers for the past two years are re-elected, and will at once enter upon their duties.

Every vote was in favor of the Constitutional amendments, as noted on page 454.

The following are the notices so far given to the second annual report of the Union by the bee-periodicals :

> We are glad to note that the National Bee-Keepers' Union has fully demonstrated its usefulness and its ability to defend the rights of its patrons. Through this medium of strength the bee-keeper has more than once been enabled to accomplish what he could not have done single-handed. While we do not favor trades'-unions in general, we must say that the Bee-Keepers' Union, under the present efficient management, has done good work for the cause it represents, and that, too, without the evil results which have been so characteristic of other trades-unions. Every bee-keeper having any interests at stake, who would secure the benefits of the Union, ought surely to become a member.—*Gleanings in Bee-Culture.*

> The second annual report from the General Manager of the National Bee Keepers' Union is before us. It recounts the work which has been done during the past year through the influence of the Union. The financial statement for two years up to June 1, 1887, shows receipts of $775 ; expenses in connection with the defense of suits, and for printing, stationery, etc., $550. The balance on hand at the present time is $224, and the Manager estimates that this amount will be required to cover the expenses of the several suits which are now before the courts. The assessment and dues amounting to $1.25 for the ensuing year are due, and the Manager would like to have prompt returns from all present members, and from all new ones who consider it in their interest to join the association.—*Canadian Bee Jour.*

> The report of the General Manager of the National Bee-Keepers' Union has been received. We have on several occasions called attention to the importance of every bee-keeper becoming a member of this organization. The report of Manager Newman seems sufficient to convince all who keep bees that they are liable to be prosecuted—perhaps persecuted is the more proper term to use—at any time. A man with plenty of means can stand the expense of a lawsuit, a poor man cannot ; hence the necessity of joining the Union. Manager Newman can supply the proper papers.—*Apiculturist.*

The National Bee-Keepers' Union is an organization for the *defense* of the pursuit against those who would injure it and its devotees ; and this is its chief divergence from trades-unions in general, which too often attempt to control the capital of others upon which they thrive, and thus destroy the foundation upon which their superstructure and means of prosperity rest.

◆

Indiana State Fair.—We are reminded at this early day of this approaching annual event, commencing Sept. 19, by a bright and cheerful poster sent to this office. Improvements are being made, more special exhibition buildings erected, a new roof on the main exhibition hall, and the grounds enlarged.

The Youth's Companion for last week contained an article entitled "Bee-Keeping," by "Arthur Warren." It is well-written, and shows that he was well-versed in the pursuit. This is the last paragraph :

> Bee-keeping is a pleasant and profitable industry. It is practiced to a greater extent in the United States than in any other part of the world, and the bees add millions of dollars a year to our national wealth. Any reader of the *Companion*, who lives in the country, can keep bees if he will first seek the advice of an authoritative book upon the subject ; but he must remember that bees require as much care as choice sheep, or cattle, or blooded horses, and that the true bee-keeper is even more assiduous in guarding his colonies than is the farmer in looking to his flocks and herds. Properly hived and watched, bees will obey the behest of man, and labor for him as well as for themselves.

The *Youth's Companion* is an excellent periodical for young persons, and well worth the subscription price ($1.75 a year). It is published by Perry Mason & Co., Boston, Mass.

◆

The Honey Crop and Prices.—We have several times cautioned those having any honey to sell, to hold back for the advance in prices, which must surely come very soon. In reference to this matter, Mr. S. F. Newman, of Norwalk, O., writes as follows :

> The honey crop in this section is almost an entire failure. Probably about one-tenth of a crop has been gathered. There is no question as to the advance in price. It certainly will reach 20 cents within 60 days.

What little hope there was for a fall crop is daily dwindling. The extremely hot and dry weather has "burnt up" almost everything, and all crops are suffering, and prices of every crop are advancing. Do not sell any honey until the end of September, is the best advice that can be given. Really, this year's crop of honey is but little, if any, more than will be required for winter stores for the bees, if used for that purpose. Prices should be *doubled* at least within two months.

◆

Destroyed by Fire.—We are sorry to learn that the store and shop of J. B. Mason & Sons, at Mechanic Falls, Maine, were burned up on Saturday, July 30, 1887. We sympathize with our friends in their loss, and are very much surprised that while they say the loss amounts to $3,000, they do not intimate whether or not the property was insured.

It seems to us that it borders on "criminal carelessness" for anyone to neglect to insure their property against fire, etc., when they have dependents who would suffer by their inattention to the *duties* of life. We do not know that this is the case with friend Mason (and hope it is not the case), and these remarks are not intended to be personal ; but they show our views of the importance of insuring property against a calamity.

We will also state that we do not think a man has the right (in the light of the present), to neglect to insure his life, when he has a dependent family leaning on him for support ! He should provide for them by an insurance on his life, and carry it, if need be, to the personal sacrifice of some luxury (or even necessity), so that his offspring may not be "beggared" in the event of his death.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Top-Storage vs. Side-Storage.

Query 453.—What is the difference in top-storage, over the brood-chamber, and side-storage with permanent division-board, the bees to enter the side-arrangement from the outside entrance; surplus frames about 8x10 inches, and no comb-guides and no foundation starters to be used?—Kentucky.

I think the difference would be in favor of top-storage.—C. C. MILLER.

The *amount* of "difference" would be pretty hard to determine, but it would be decidedly in favor of top-storing.—J. P. H. BROWN.

I prefer wholly top-storage, as being more convenient, and just as profitable.—A. J. COOK.

The difference is that bees will store more honey over the brood than at any other point.—G. L. TINKER.

Side-storage does not work well in this locality, with any hive that I have seen constructed for that purpose.—H. D. CUTTING.

There will be more side-storage with such deep surplus frames, than there would be otherwise. We have used side-storing hives for years, and finally abandoned them altogether, but some are successful with them.—DADANT & SON.

The difference is that the top-storage system is cheaper, much more quickly manipulated, safer from robbers, easier, pleasanter, and gives us the whitest honey, freest from bee-bread—just as I have advocated for over 15 years.—JAMES HEDDON.

I do not know, as I have never tested it. I think, however, the side arrangement would not prove acceptable. It is too theoretical to suit myself, and I think the idea could not have originated in the brain of an expert.—J. E. POND.

Top-storage secures as good results as side-storage, and requires less labor. You speak of an "outside" entrance; in what way does it differ from an "inside" entrance? If no comb guides or starters are used, the combs may be built crosswise.—W. Z. HUTCHINSON.

The difference is, as practicable is to impracticable. Side-storing is of doubtful utility when no division-board is between, and is entirely impracticable with a permanent division between the brood-nest and the side department. Bees work best over the brood-nest because the heat and odor of the bees rises and fills the surplus cases more to the taste of the bees than they could enjoy it at the side of the brood-nest. Bees instinctively store their honey so as to have the brood-nest between their stores and the entrance to their domiciles, be it a hollow tree or a properly constructed bee hive.—G. W. DEMAREE.

Probably some honey in the former and none in the latter. No one would think of working bees without guides (starters) or foundation at this age of the world, and compelling the bees to enter the sections from the outside would cut off all prospect of a honey crop in any event.—G. M. DOOLITTLE.

Top-storage is far preferable in every way. It would be difficult to figure out a *differentiated* statement of quantities, but it would all tell on the side of top-storing—decidedly.—THE EDITOR.

Double Bee-Space above the Brood-Nest.

Query 454.—Is a double bee-space between the surplus and brood apartments of any advantage?—J. W. S.

Yes, of great advantage.—A. J. COOK.

In some respects it is a disadvantage.—J. P. H. BROWN.

Two bee-spaces, rightly made, are of advantage.—C. C. MILLER.

No. We must have the honey-apartment as close to the brood as possible.—DADANT & SON.

No, not if I understand the question correctly.—G. M. DOOLITTLE.

It prevents to a great extent the building of brace-combs, and allows the sections to be removed for tiering up with less trouble.—H. D. CUTTING.

It is a very great advantage if the double bee-space is formed by a movable honey-board. It effectually prevents the building of brace-combs beneath the supers, so that the latter are readily removed or tiered up as needs be.—G. L. TINKER.

I think not, but a disadvantage rather, as it would cause the building of brace-combs and ladder-steps to the surplus chamber. There can certainly be no need for such space, and all extra space is filled with comb to bother awfully when manipulating.—J. E. POND.

The advantage of a double bee-space is this: The lower bee-space will contain the brace-combs that with only *one* bee-space would be attached to the bottom of the sections, or to the wide frames, if they are used. No brace-combs are built in the *upper* bee-space, and when the supers are taken off, the bottoms of the sections are clean.—W. Z. HUTCHINSON.

I would prefer a "single bee-space" between the brood and the surplus departments, if there was any way of preventing the bees from sticking the two apartments together; but as this cannot be done without the "double bee-spaces," in the way of metal queen-excluders, honey-boards, or my slotted top-bar frames, I find the "double bee-spaces" a greater advantage. The double bee-spaces, if properly arranged, prevent all bits of comb between the section-cases and the tops of the brood-frames, and make the "tiering up system" rapid and pleasant. Certainly this is an "advantage."—G. W. DEMAREE.

No, but two bee-spaces with the break-joint honey-board between, is of immense advantage, and this I have been trying to impress upon the minds of my brother bee-keepers for nearly ten years, and many are now seeing and taking advantage of it. A few who have just found it out, are falsely claiming it as their own.—JAMES HEDDON.

Yes; by it, cleaner sections are obtained, and brace-combs avoided.—THE EDITOR.

Bees Working in Sections Early.

Query 455.—How would it do to get bees to work in the sections early, by first placing a frame of sections with foundation starters, then a frame of ripe brood and bees, then a frame of sections, and another frame of bees and honey, then a frame of sections, etc., alternating them? Would not this plan get the bees to work at once in the sections? Mr. John Wileman could now take a ¼ ton of comb honey from his 8 colonies worked on the above plan.—New York.

The trouble is that you would get lots of pollen in the sections, by that method.—DADANT & SON.

It would be sorry looking comb honey gotten in that way. I should much prefer the contraction plan.—G. M. DOOLITTLE.

While your plan encourages the bees to an early start in the sections, it is attended with objections.—J. P. H. BROWN.

The above plan would work all right, but with no satisfaction to me. The ¼ ton of honey to 8 colonies is easy enough, *provided* the bees can find nectar enough to convert into honey.—H. D. CUTTING.

The plan is excellent, though I think one frame of brood would do nearly as well as so many. This, of course, would only work where second story hives were in use.—A. J. COOK.

It would start the bees in sections, but you can start them just as well by putting in the super a single section containing some honey uncapped. I should not like the proposed plan.—C. C. MILLER.

With my hive construction and locality no such extra labor is needed; again, the comb would be apt to be stained—it might contain pollen, also. If I considered a manipulation of such nature advantageous, I should take advantage of it by quickly placing a case of sections between the two cases of my new brood-chamber. We must learn to avoid time-consuming manipulation.—JAMES HEDDON.

It would not do for me. "For the life of me" I cannot understand why any one has got to *induce* the bees to go to work in the section-cases if the brood-nest is crowded with brood and honey, and there are field workers ready, and honey in the flowers waiting to be gathered. Under such circumstances, when I adjust a section-case on the hive, the bees will take possession of it, and have their heads sticking up through the openings at the top of the case before I can put on the quilt and hive-cover. Get your brood-chambers "chock full" of workers of the right age to gather honey, and have the brood-nest full of unhatched and hatching brood, put on your section-cases at the right time, and if your bees do not store honey promptly and rapidly, you just set it down that there is no honey in the fields. I do not want any brood close to my nice honey in the sections. —G.W. DEMAREE.

This plan would undoubtedly start the bees to work in the sections, but it is too much "machinery," and they will start soon enough if the sections have drawn comb, if there is any honey being gathered in excess of what is being used. How much honey did Mr. John W. get from 8 colonies worked upon some *other* plan? How about pollen and brood in the sections?—W. Z. HUTCHINSON.

I do not think this plan will "pan out" well at all. The brood-chamber is the proper place in which to rear brood, and all attempts that I have heard of in the direction of this query, have proved failures. Many plans seem very fine in theory to the novice, that in practice prove worse than valueless, and in my opinion the result that will follow working on the above theory, will give brood when and where it is not wanted, and no extra honey as a recompense.—J. E. POND.

This is a successful method of working for comb honey. A bee-keeper in Pennsylvania took 100 pounds of comb honey in sections from a colony of Syrio-Albino bees worked on this plan the present poor season, and increased to 6 colonies. It is easy to get the bees started in the sections. If the frames of sections, just before being sealed, are lifted to an upper case, the honey will be very nice. This method is usually practiced without separators.—G. L. TINKER.

While it may get the bees to start early, the plan is too objectionable to be recommended.—THE EDITOR.

Convention Notices.

☞ The next meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at O. J. Cumming's, in Guilford, 4 miles northeast of Rockford, Ills., on Thursday, Aug. 18, 1887. D. A. FULLER, *Sec.*

☞ The Cedar Valley Bee-Keepers' Association will be held at waterloo, Iowa, on Sept. 6 and 7, 1887. The Cedar Valley Bee-Keepers' Produce and Supply Union will meet with the above Association. This meeting will be made both pleasant and profitable to bee-keepers. All interested in apiculture are cordially invited to attend. Do not be discouraged with this year's crop, but come and have a good time. H. E. HUBBARD, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⟜ east; ⊸ west; and this ♂ northeast: ↖○ northwest: ○↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Effects of Drouth—Sweet Clover.

DR. C. C. MILLER.

On page 467, Prof. Cook is quoted as saying: "The season has proven that drouth alone does not surely prevent the secretion of nectar by the flowers." I venture to make the assertion that the season has proven that drouth alone *does* surely prevent the secretion of nectar by the flowers. I have no doubt Prof. Cook is right as to the amount of drouth in his locality this year, and it is undoubtedly true, I think, that a moderate drouth is favorable rather than otherwise for securing a crop of honey. Mr. Quinby, if I remember correctly, claimed that the best time for storing honey rapidly was when it was so dry that farmers were just beginning to complain of the drouth. I suppose the reason is that at such times the nectar is partially evaporated when gathered by the bees, and of course the less water the bees are obliged to carry into the hives in the nectar, the more honey they will store in a given length of time. But let the drouth continue long enough, and become severe enough, and the case is quite different.

It is a little risky to make almost any positive statement about bees, there are so many chances of being mistaken, but I can at least say that I believe that drouth alone is responsible for the fact that most of my colonies this first day of August have less honey than when taken out of the cellar. To be sure, it is no ordinary drouth—no such drouth has ever been known here. Along the roadsides I have seen clover that looked as if a fire had passed over it, and I have no doubt the roots were utterly dead. In other places the clover is not killed, and even at this date many blossoms are seen, but the bees seem to get little or nothing from it. Of course it may be said that some other influence prevents the secretion of nectar, but the clover killed outright by the drouth is, at least, strong presumptive evidence that drouth prevents nectar-making.

SWEET CLOVER.

It is no little to the credit of sweet clover that during this terrible drouth, when the ground in many places is dry as an ash-heap, and when the pastures in June and July have looked like October, and acres upon acres of oats have been cut down as hay—it is no little to the credit of sweet clover, that through all it has looked fresh and smiling, and has been crowded with bees. Like every thing else, it blossomed unusually early, so that some was entirely out of bloom by July 22, and looks now as if it would throw out no later bloom.

Our good editor intimates that those are short-sighted who have failed to provide honey-plants to meet a dearth. Now, friend Newman, do you know any one who has as much as a single acre of melilot all in one piece? If you do, please get him to rise and explain how it was done. If sown on the roadside almost any time of year, I think it will grow, but I do not know how to get a field of it, and I have sown more than 20 acres with a result of not more than about an acre in all growing. I should like to know how to go to work to sow a field of it so as to be reasonably certain of getting a fair stand.

Marengo, ♁ Ills.

[Mr. C. H. Dibbern, Milan, Ills., (see page 458), has sown three acres of it more than he had before, and will, no doubt, inform our readers "how to do it," as requested by Dr. Miller.

John Nebel & Son, High Hill, Mo., say on page 502, that they have an acre of it, and that the bees worked on it from morning till night. "They add that it is the only flower that has secreted nectar in any quantity this season."

Prof. C. E. Thorne, of the Ohio State University, says: "It will grow quite luxuriantly in hard, poor clay, where even white clover will scarcely live at all, and grows much more rapidly than red clover in any soil, while in the soils that are, as is said, 'clover-sick,' it thrives as well as anywhere. It is a good forage plant for bees and for cattle, and is well adapted for soiling, as it makes a growth of 4 to 6 feet during the season, and is said to bear two or three cuttings. A German analysis gives its hay a feeding value of $15 per ton as against $16.28 for very good red clover hay. While red clover, upon which our farming in many sections, and especially in clay lands, depends so essentially for crops of grain, is becoming more and more uncertain, it would seem to be worth while to try this 'fast weed' as a resource for recuperative green manuring, in heavy soils especially."

But its greatest recommendation for the general bee-keeper is the fact that it requires no especial cultivation, thus making it particularly desirable for roadsides and commons. Being a biennial, the seeds possess great vitality, and may be kept over for a long time, and scattered a handful at a time, as opportunity offers, or a bare place develops itself. Where possible to devote even a limited time to its cultivation, the ground may be plowed and the seed lightly harrowed under in the fall with winter wheat, or planted with barley; or in early spring it can be sown with wheat, oats or rye, without detriment to the grain. If wanted, however, in its greatest perfection, it should be planted in drills 4 feet apart, and once hilled up with the cultivator. Sweet clover blooms and yields nectar continuously in this latitude from about June 10 till Aug. 1, when the first seed crop matures, which is succeeded with a new foliage and profuse second bloom about Aug. 15, and this continues till winter sets in. If a part of the field be mown about July, it will bloom and yield nectar, except when rains are falling, or during the prevalence of strong, adverse winds from the middle of June till past the middle of October—certainly as long a period as our impatient little workers can utilize it; nor will it then cease to "waste its sweetness on the desert air," but after the advent of winter, when all else has passed into "the sere and yellow leaf," its modest flowers will waft a fragrant good-bye to the bees when on their last flight, and leave pleasant memories for their long winter dreams.—Ed.]

For the American Bee Journal.

Interesting Facts about Honey.

SAMUEL CUSHMAN.

The following is in my circular which is given free to purchasers of my honey:

Honey is the only purely natural sweet in a commercial form. It is the nectar of flowers gathered and stored by the bees, and changed by them to the smooth, mellow sweet known as honey. It furnishes the same element of nutrition as sugar and starch—gives warmth and energy. Starch and sugar when eaten, undergo a digestive change before they are assimilated. In honey this change has been made to a considerable extent by the bees. It is partly digested, easy of assimilation, and concentrated.

The longer honey is on the hive, the more complete is this change. It derives its flavor from the blossoms from which it was gathered. There is as much difference in honey as in milk or butter, and the same liability of adulteration. Owing to low prices, caused by improved methods and increased production, it is less adulterated than formerly; probably no more than other food products. When every producer's name is on each package, he thinks as much of his reputation for producing a good article as does the producer of choice fruit or butter.

As a medicine, honey has great value and many uses. It is excellent in most throat and lung affections, and is often used in place of cod liver oil with great benefit. Occasionally there are found people with whom it does not agree, as is the case with other articles of food, but the majority can learn to use it with beneficial results. Children, who have more natural appetites, generally prefer it to butter with their bread. Honey is a laxative and sedative, and in disease of bladder and kidneys it is an excellent remedy. It also partakes of the medicinal properties of the plant from which it was gathered. It has much the same effect as wine or stimulants, without their injurious effects, and is unequaled in mead and harvest drinks. As an external application it is irritating when clear, and soothing if diluted. In most country places the qualities of honey are appreciated, and it is much used for croup and colds.

In preserving fruit in a natural state, the formic acid it contains makes it a better preservative than sugar syrup. In cooking and confections it is also used.

Pawtucket, R. I.

For the American Bee Journal.

Season in Missouri—Sweet Clover.

JOHN NEBEL & SON.

We began the season with 308 colonies; all had an abundance of stores for brood-rearing, and they bred up very strong the forepart of the season, and consumed what little honey they stored as fast as they gathered it. It would have been hard at times to have found one-fourth of a pound of honey in some colonies.

Fruit bloom did not yield well; white clover and raspberries were full of bloom, but clover did not yield any nectar; the long continued drouth dried up the bloom very suddenly. Basswood looked promising, was full of bloom, but it did not secrete any nectar. It bloomed but 4 or 5 days, and since basswood there has been no bloom but sweet clover, of which we have an acre, that was full of bloom. Bees worked on this from morning to night. Sweet clover is the only flower that has secreted nectar in any quantity this season.

At this date there is no honey coming in at all; bees are in a starving condition. We have been feeding them for a week to keep up brood-rearing to get colonies strong enough, so that if there is any fall honey they will be able to store enough for winter use. The prospects for a fall crop are slim. The few showers we get occasionally are not sufficient to keep fall flowers growing, but they are drying up. To-day the mercury was at 106°. Our bees did not increase any; we have not had a single swarm, and have heard of but 3 or 4 in the county. There are a good many absconding swarms passing over and settling in our apiaries, day after day. Bees in the trees in the woods will surely all starve.

Having disposed of a number of colonies this season, we now have 250 colonies left, and expect to double these up to 200, and will try to winter that many, although it will take considerable sugar to feed them. We live in hopes that we will have a good yield next year.

High Hill, Mo., July 30, 1887.

For the American Bee Journal.

A Plea for "Extracted."

OLIVER FOSTER.

I notice that it is urged by some that the word "extracted," as applied to honey taken from the comb, is a "misnomer," and should be changed for a better name. It is also argued that we do not wish to be obliged to explain to our customers what we mean by "extracted honey." The demand seems to be for a name that will explain itself, or rather, that will explain the article in question. Let me suggest that it would take a name long enough to fill a column in the Bee Journal, more or less, to do that. No one will ever know what "extracted honey" is, until it is explained more fully than any name can explain it.

A few years ago, extracted honey was a new article, hence the coinage of a new name was demanded. The name "extracted" was coined and has been "legal tender" until recently. Let us see if it is a misnomer.

Webster says that the verb "extract" means: 1. To *draw out*. 2. To *remove forcibly*. 3. To withdraw by distillation, etc. 4. To take by selection. Now, according to definitions No. 1 and No. 2, is there a word in the English language that will more perfectly explain the source and nature of the article than the word extracted?

It is objected that there are so many article of commerce called "extracts," the very name of which signifies that they have been changed from their original crude nature by some special process. The answer is that the word *extracted* is not used in connection with any common article of commerce excepting honey. The *noun* "extract" is not the word with which we are dealing, at all.

When we hear of extracting a tooth, or of taking an extract from a book, the thought of drugs or culinary supplies is not suggested, because we know something of these things. So when people know something about extracted honey, I think the name will not be very objectionable. Meantime, if we cannot spare the time to explain what extracted honey is, we might just refer our inquiring customers to their dictionaries (?). Much would be gained if each bee-keeper would write or select for his local paper, such articles as will enlighten the people on this and kindred subjects. Such a course would help wonderfully in developing a home demand for honey.

All the names that have been suggested thus far are objectionable. "Combless honey" I think, with the Editor and others, is the least so; but then it applies as well to the old-fashioned "squeezed" honey, to adulterated honey, as to the genuine extracted. Besides, it does not sound well. "Free honey" sounds well, and it would attract many customers. In such a season as last, with some bee-men I know, it would almost answer without explanation; but we could not afford to advertise "free honey" this year without an explanation!

If we must have a new name I think simply "honey" would be as good as any name that has been suggested, but there are objections to any *new* name that can be offered.

"The honey extractor" is becoming a household word among the people. It is exhibited, operated and explained at nearly every State and County Fair, and on the premises of nearly every one who keeps a dozen colonies of bees. I fancy the customer who is familiar with this machine and its product will say: "I want none of your 'new fangled' honey. Give me the genuine extracted."

Mt. Vernon,⊶ Iowa.

For the American Bee Journal.

Very Little Honey—Taxing Bees.

CHARLES WALKER.

On April 1, I took 75 colonies out of the cellar, all in excellent condition. I have increased them to 108 colonies; but, alas, as yet we have no honey worth mentioning. I am feeding some colonies that were destitute of honey. Who ever heard of feeding bees in July, in Michigan?

The clover yielded very little honey, and dried up so soon. I took more capped honey last season from one colony than I could have taken from 108 colonies so far this season. We have had no rain to speak of since May, and the forest fires are burning up what fall flowers there might have been; so I think we will not have much honey to "go begging" on the markets this season. I have visited several apiaries, and I found the same results in them. If we get enough from fall bloom to winter our bees on, we will do well.

Our supervisor has always assessed bees in this township at $5 per colony, until this season. A fellow-apiarist and myself remonstrated with him, and finally persuaded him to lower the assessment to the still high figure of $3 per colony. This is probably the highest in the State, yet we had shown him copies of the BEE JOURNAL and letters from other bee-keepers in this State, on the subject of taxation of bees.

Think of us paying taxes this season on an assessment of $5 per colony, and no honey to do it with! This is nearly as bad as McCormick's "bill" proposed sometime ago. Both originators of these "bills" should be, and I think they are, ashamed of their work.

The fall flowers are beginning to bloom. If we could only have one good rain, it would help us out amazingly. I should like to attend the convention at Chicago in November, but it will all depend upon the next 5 or 6 weeks of the honey season.

Bravo, ♀ Mich., July 30, 1887.

For the American Bee Journal.

Monkeying with Bees—Swarming.

ARTHUR BARNES.

Finding the following in the New York *Sun* for July 20, 1887, and having a good laugh over it, I send it to the BEE JOURNAL so that its readers may laugh over it, too. Here is the article:

The ubiquitous *Star* reporter was strolling along a country road last Wednesday. It was just at that hour when Nature in her loveliest evening dress, conscious that the friendly shadows conceal every blemish on her fair face, strives to beguile with most potent witchery the hearts of men. The pale Sky was blushing with the last kisses of her departed lord, a tender light touched the purple hills, the roadside fences were hung with vines whose every leaf was jeweled with dew, thick-fleeced ewes with their frisky offspring disported themselves under the apple trees in the old orchard, the low of kine returning from the pasture, "set with slender galingale," came faintly to the reporter's ears. He sat down on a mossy stone, first spreading his handkerchief carefully over it, drank in the ethereal beauty of the scene, inhaled the breeze laden with incense stolen from closing blossoms, and listened to nature's harmonies rising all around—the gurgle of the brooklet, the plaintive note of a whippoorwill. A frog, with a grunt of disgust, plunged into the brook, and the reporter smote himself. "Hang the mosquitoes," he said, and, rising, had walked onward a few paces when he was startled by an uncouth figure sitting on the fence of a farm house, which was dimly visible through the trees in the gathering dusk.

The figure was sitting with its elbows on its knees, and its face in its hands, which were incased in large fur gloves. Stocking legs covered the arm from wrist to elbow, while a black veil hung over the dilapidated hat, after the coy fashion of Castilian dames. As the reporter drew near, it sat erect and shyly raised its veil. Then in a voice which extreme dejection seemed to have robbed of surprise, and which seemed familiar somehow, it said: "Good evening, Mr. Blank."

Looking closer the reporter recognized with astonishment the lineaments of one whom in former days he had known as a policeman in New York—it was solely in the way of business, that is, newspaper business, that the reporter had made the acquaintance of the guardian of the peace!

"Why, McFinney, how do you do! Great Scott! What's the matter? Small-pox?" exclaimed the reporter, as he saw the red swellings covering Mr. McFinney's face, and the hand that had been ungloved to clasp his own.

"Bees," said McFinney, laconically.

"Ah! So you are keeping bees? Very intelligent, interesting little creatures I have heard."

"Young man," said the veiled ex-policeman earnestly, "my advice to those about to monkey with bees is—don't. I've been at 'em for two days now, and I find 'em something too intelligent; they can find a hole in a veil so quick it makes you dizzy. And interesting! They're like a detective story; when they hump up and get a focus on you, you want to finish 'em."

Mr. McFinney smiled feebly at his humorous conceit, and, laying his hand on the reporter's arm, continued confidentially:

"You know all the books say bee-keeping is such a nice, clean, pleasant business. So my wife thought she'd like to try it. She said she wanted some profit off the farm, and bees wouldn't make any trouble, but would just go to work and make honey and money for us, and we wouldn't have to hoe 'em, nor milk 'em, nor weed 'em, nor churn 'em, nor nothing, but just let them set in the sun and work. One of the neighbors wanted to sell some, and we bought a dozen swarms and set 'em over there." Mr. McFinney indicated the place with his thumb. "A little book came with 'em that told how to work 'em."

"Well, yesterday my wife thought they'd been making honey for home consumption long enough, and said I must put in some honey boxes. I went to my son Melville—he was making a fish pole—and told him to put 'em in; he said he was too busy to fool with bees, so I had to do it. I am afraid of bees and snakes. The book says to proceed boldly. I proceeded boldly, and took off a cover, but the bees came out, and I went away. The book said, if one were timid, to wear veil and gloves, so I put on this rig; but it makes a man want to dodge when he sees a dozen just outside making for his eyes. The book said to blow a little smoke into the hive to quiet the bees; but the very first time I tried that the bees got as mad as the—as mad," concluded Mr. McFinney mildly.

"They went for me on all sides. Luckily I remembered that the book said: 'If persistently assailed, retreat to the shade,' and I retreated to the shade. But I got a few boxes in. By and by my wife came out and said the way to manage bees was not to be afraid of them. Some bees came out and argued with her, and she went back for a veil. We tried a few more and slapped them in boxes in a way that made the interesting and intelligent creatures swear like blue blazes, till pretty soon a colony swarmed out, and my wife said, 'I must be getting back to my work.' I thought I would, too, for quite a few had taken up their quarters in my ear. My wife bragged that she put the boxes in any way. This morning I went out and found the cover on cornerwise, and the bees just red hot and boiling over because the boxes were in bottom side up, and one of the glasses was stove in. I told my wife that taking care of bees was nice girl's work, and we'd leave it to Jenny when she got home from school."

Mr. McFinney paused.

"Have they swarmed any yet?" the reporter asked sympathetically.

An ominous light gleamed in Mr. McFinney's eye. He had evidently been touched in a tender point, but he answered gently:

"Yes, they swarmed to-day. Yes, I think they swarmed this morning. I was hilling the corn when my wife blew the horn for me, and I went down to the house. It was about 9 o'clock. My wife said the bees were swarming, and she had a hive and a sheet and a brush and some sweetened water ready. Way up in the tip-top of an apple tree there were a lot of bees making an awful circus about a big black bunch that hung from a limb, and when I looked at it I saw it was one crawling mass of bees. My wife said to go up a ladder and knock them into the basket and let it down. So when they had all settled I climbed up the ladder, but I thought it might soothe them to sprinkle some of the sweetened water on them, and when I came down I found that the puppy had drank it up and tipped over the hive and chewed up the sheet and hid the basket. Well, we got 'em all ready again, and then I went up and sprinkled the bees, and came down and got the basket and a long handled egg beater."

"What!" said the reporter.

"It was a patent thing that we couldn't ever make work, and Mrs. McFinney thought I could poke them off the branch with it. I couldn't get near enough on the ladder, so I climbed up in the tree and held the basket under the swarm and scraped them into the basket I don't believe the water had soothed them much; they hissed just like snakes when they fell into the basket, and my wife made me nervous. She kept telling me I was smashing them against the limb. Then I began to let the basket down, but it turned over in the air, and they all came out and flew most every way, but chiefly my way. They seemed to think it was all my fault. One 'gentle Italian worker' got under my veil and shut up my eye."

The reporter had noticed the peculiar expression given to Mr. McFinney's face by the mishap.

"Pretty soon," he went on, "they all went back to the same place; and just exactly the same thing happened over again; only this time the whole swarm went for me, and I tumbled out of the tree. I hit the hive as I came down, and hurt my shoulder some, and the sweetened water got all over my hair. My wife said she didn't see what was the idea in tipping the basket over every time. They flew into another tree this time, and we set up the hive, and I got up in the tree and sawed off the limb. It was a big limb up in the top again, and my wife was to steady it with a pitchfork as it fell. Well, she missed it; and the fork scraped off every blamed bee. They doubled up and turned all colors, they were so mad; but finally they flew off again, and we were pretty tired and had our dinner.

"After dinner I went out again and found them on a lot of little twigs. I picked them off and laid them in front of the hive, and kind of brushed 'em along toward it. After awhile they all went in, and then after awhile they all came out. They crawled all over the hive, and Mr. Jordan, the man I bought them of, came up and looked at 'em with me. He said he didn't see what they were doing on the outside of the hive. They stayed there so long I got kind of tired of seeing them crawl over each other and make faces at me, and I said: 'I guess I'll brush 'em off into the sheet.' Mr. Jordan put on his hat and said: 'I guess I won't stay, then.' So I brushed 'em into the sheet, and they all flew up and lighted on a fence over our swamp. I jammed my hat on and I said to myself, 'Thomas McFinney, don't let it be said that you couldn't collar a swarm of bees,' and Melville and me went down there. We spread the sheet over the hummocks in the bog and set the hive on it. Melville had on his gum boots, so he waded in and dummed 'em into the sheet. About a quart fell into the water and drowned. They sissed when they touched the water as though they were red hot. But the rest were so tired that pretty soon they crawled into the hive and we've put it in place. I hope they won't come out again to-morrow," said Mr. McFinney not very hopefully. "I told my wife that it needs a younger man than me to gallop and climb and swim after her bees, and a more active." Mr. McFinney felt of his shoulder tenderly, and, taking off his hat and veil, passed his fingers through his sticky hair.

* * *

For the American Bee Journal.

How Bees Know One Another.

GEO. F. ROBBINS.

When I first began to study bee-books and bee-keeping, I was taught that bees recognize one another by the sense of smell. I took it for granted that that was true, for that seemed to be the general assumption. After awhile I saw doubts of the theory expressed, and at length decided, from watching the habits of bees, that the view could not be sustained. I have never seen the assumption proven. M. Schachinger, on page 422, does not prove it. He leaves some very broad chasms between premise and conclusion.

It may be the opinion of the reader that I can no more logically draw my conclusions from the premises, but I am certain I have a theory just as reasonable as the above, and, in my opinion, much more so. My view is, that bees recognize one another more by actions than by all things else. Two facts in bee-nature are well known, first, their senses are far more delicate than ours. They and their little world are so much less than we and ours, that what to us is so infinitesimal as to escape notice, to them is a matter of some magnitude. They can perceive what we cannot, and it may be that in some way we would scarcely imagine all their senses aid in mutual recognition.

Certainly we know that, second, bees know their own home, and that chiefly by sight. They carefully study their hive and its surroundings; every little mark is cognized and remembered. Now, when a bee enters her home, she knows it; she feels at home and acts accordingly. Her sisters know by the way she acts that she is at home. If she goes into a strange hive, she goes either designedly or by mistake.

Now nature is spontaneous. In whatever form manifested, it wells out as a matter of instinct. A plant or an emotion springs up with the same spontaneity. The man or bee that follows his instincts, shows guilt or innocence—caution or fear. It is generally to be supposed that no bee will enter a strange hive except for purposes of plunder. The bee that seeks ingress to a hive for the purpose of robbing, knows that she is a robber; she seeks to steal her way with fear and dread. The home bees perceive the signs, recognize her as a robber, and treat her accordingly.

M. Schachinger thinks that, after the robber has been successful a few times in entering and leaving a hive, that she can go and come with impunity, because she has acquired the scent of the colony. If so, why do not her sister bees perceive the foreign scent, and, if governed by that in recognizing one another, repel her as an intruder? Likewise, how can she succeed that few times until she acquires the scent? Evidently they do not judge by smell alone, if at all. It is easier to assume that the bee that can walk in as though she belonged there—makes herself at home—can go and come in safety. To attribute so much design to a bee may be assuming a great deal, but bees are certainly creatures of volition. They will, and do. Hence, it is reasonable to conclude since some do enter, load and return, that partly perhaps in obedience to the instinct that prompts her to steal, the bee wills to go into the hive she means to rob, with an air of business and familiarity that disarms the inmates. If there is anything suspicious about her, the home bees simply examine her carefully, she submitting innocently, and if they do not find sufficient evidence of imposture, she is allowed to pass.

But if a bee or bees go into a strange hive with no intention to steal, what then? In certain cases they often do, and generally with perfect safety. It is safe to say that bees never fight except in case one party has reason to regard the other as robbers or trespassers. The entire secret of uniting successfully is to do it at a time or under circumstances when that will not occur. I never could unite 2 colonies safely at a time when bees are flying. Each party takes the other to be intruders, and they will fight to the death. But on a cool or cloudy day, or in early morning or late evening—any time when bees remain quietly at home—I may unite them in any way I may desire. The fact that no bees are flying—that it is no time to be out—seems to preclude the idea that either party can be intruders. If they recognize one another as strangers at all in such cases, they can at least do so as readily by actions as by odor. But the following examples indicate, if they do not prove, that bees do not recognize one another by scent:

I can put a new swarm into a hive with another colony generally with perfect safety. They know no home, and they go into the hive with the intention to make it their home—not as enemies. I have often known a swarm that issued and then returned to the same hive, in returning be joined by another swarm, and no fighting be done. Young bees out of the hive for the first time, often by mistake go into the wrong hive unmolested. If I move a hive to some other location, and leave the old stand vacant, the flying bees, when they return and find their old home gone, after soaring around the place awhile, will quietly and safely enter some contiguous hive. They apparently think either that this must be their home, or they will, like the homeless swarm, make it their home.

In the above cases they at least do not act like intruders. We have no certain evidence that they are recognized as foreigners. If they judge by odor alone, strangers would be certainly known as strangers, and promptly met as trespassers.

Mechanicsburg,⊙ Ills.

Farmers' Budget.

Feeding Bees for Winter Stores.

A. F. STAUFFER.

The surplus honey crop this season will be very short, hardly one-third of an average yield, taking the country over; and in some localities not a pound will be gathered. Those fortunate enough to have a surplus should be slow in selling, as by holding it until cool weather a good price can be obtained. It is already being quoted in some places at 15 cents per pound, and no doubt it will be worth 18 to 20 cents by fall.

Our own bees have hardly made a living since fruit bloom. White clover and basswood were total failures, and on account of the drouth no fall crop can be expected. This has been the poorest season here that we have had since I began bee keeping, 18 years ago.

Bees must be fed, and to get them in good condition for winter feeding should be done early. Will it pay? Certainly—as after poor seasons is the time when the bees are the most profitable. A great many careless bee-keepers will neglect their bees and lose them, and by spring will be obliged to buy again, when good prices can be obtained by those having them to sell.

Besides, the honey markets will be entirely bare of honey by next season, which will insure good prices for the next crop. So be sure and have your bees in good condition for winter.

Sterling,⊸ Ills.

For the American Bee Journal

Labels for Honey, etc.

G. W. DEMAREE.

I am not favorably impressed with "combless" as a distinctive commercial name for honey out of the comb. "Combless" would suggest to many *innocent* people that some new process had been resorted to, to *make* honey without comb. When we look at the matter philosophically, honey is honey, in or out of the waxen cells. What we need most is a name that needs no explanation, and I believe that we will drift to such a name by-and-by. Please study the drawings introduced above, as lables for honey?

HONEY,
(In the Comb,)
FROM THE APIARY OF
G. W. DEMAREE, Chicago, Ills.

HONEY,
(Taken from the Comb,)
FROM THE APIARY OF
G. W. DEMAREE, Chicago, Ills.

"Comb honey" is quite a modern misnomer. "Honey in the comb" is more correct as a name for it in commercial circles.

Christiansburg,♁ Ky., July 28, 1887.

[As last, Bro. Demaree, we are coming to the same conclusions. On page 435 we remarked as follows:

> We much prefer to call honey out of the comb, simply "Honey," and that not taken out, "Honey in the Comb." Now will some one else try to suggest a new name?

We confess that we think the name there suggested is less objectionable than any other so far brought out. We see but little objection to the additional words "taken from the comb," as suggested by Mr. Demaree. But, if "taken from the combs," it is extracted; and there we are, landed back at the starting point. There is but a *shade* of difference.—ED.]

For the American Bee Journal.

Mine Pees and 1887.

C. H. CHAPMAN.

Oh, my, my! dish veeding all doso pees
  To keep um life to ty,
Ish pout der only cash I sees—
  Dis shummer ish so try.

Von hundret schvarms und vifty-doo,
  Mit empty combs ish all
I gets dish long, try shummer drue,
  Mit notings in der fall.

Von rainy veek might grow von veeds,
  To got some honey mit,
Und makes von some der winter feeds,
  Und save mine money yet.

Mine shildren nor mine pees can't lif
  On glucose stuff—dots pad
Ach "Viley's lie." Vel, von can't gif
  Nor sell vot he don't had.

Oh! Heben, gif von copyous showers,
  Mit sunshine vedder doo,
Und vake do life each vilted flowers
  Of effry kind und hue.

Cohoctah, Mich., July 29, 1887.

For the American Bee Journal.

"Nectar" vs. Extracted Honey.

J. E. POND.

The need of a word in place of "extracted," has long been recognized, but as yet I have seen nothing suggested that would appropriately fill its place. So far a prefix to the word "honey" in the form of an adjective, has seemed necessary to the fruitful brains of those who are offering an exchange. Now why not drop the word honey, which really means comb honey, and take a single noun that will not only fill the gap, and be euphonious, but that also is a true synonym for honey out of the comb? The word I mean is "nectar." Why not adopt it? All that is required is to put it into general use, and the "job" is done.

For myself I cannot see why "nectar" is not more appropriate than any that can be adopted. Any word that we can select, will be subject, of course, to the criticisms that may be made in regard to purity; but "nectar" will apply to the liquid or granulated form. At any rate I offer it as my contribution to the fund of nomenclatory terms, and really hope it will be looked upon with favor by the "crowd."

"Combless honey" does not seem to me to be just the thing; we might say a headless hat, a footless boot, a coatless man, or a headless hair; but such use would seem (and does to me seem) as inappropriate as can be; and "combless honey" seems so too. I hope some word other than extracted will be adopted.

Foxboro,⟜ Mass.

[The objection to the substitution of the word "nectar" for honey, is that it is the proper name for *all* "the sweetish secretions of the glands of plants"—including honey. It would therefore be entirely inappropriate to use it as a substitute for honey.—ED.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Honey-Lemonade.—J. M. Shuck, Des Moines,⊙ Iowa, sends this recipe for honey-lemonade:

Make it in the usual way, using honey instead of sugar; nothing can be used as a summer beverage that is more grateful and refreshing. Try it. Many thousands of pounds of honey may be used in this way, and the users all be benefited.

Melissa as a Honey-Plant.—J. R. Thomas, Madison,♂ Nebr., on July 30, 1887, says:

For a number of days I have been watching the bees as they play upon the large pasturage of "melissa" that Mr. A. C. Tyrrel has provided for his bees. The humming is fully as loud over the flowers as a full colony of bees on the wing at swarming time; and they work on it from early dawn until dark. I saw 20 bees on a single plant. With the knowledge I have of this plant, I would not keep bees without also keeping melissa for them.

Feeding Sugar during a Drouth.—S. L. Pervier, Mineral,♂ Ills., on July 29, 1887, asks:

What shall I do with my bees? I have 40 colonies fairly strong, but *no* honey—not a pound to a colony—on account of the drouth. Will it pay to buy sugar and feed them? If so, how much shall I feed to each colony a day? Please give full directions.

[As Mr. Heddon feeds sugar to his bees for winter stores, we have requested him to answer the above. It is as follows:—Ed.]

Supposing that Mr. Pervier does not wish to stimulate brood-rearing (and I think I should not in his circumstances), I would advise having the feed the consistency of ripe honey, and feeding 10 to 20 pounds at a time. Feeding by dribs, or little at a time, stimulates reproduction of bees, which consumes a great portion of the feed, and which I should not desire. I am not afraid of old bees for winter; I prefer them, and small or average sized colonies to large ones. Bees live a long time if they do not labor much. Older bees are less liable to disease from the retention of fecal matter.

With regard to the kind of food, I should prefer honey, at a time of year when the bees could fly freely; but if there is plenty of bee-bread in the hives, or of pollen in the fields, cane-sugar will do well. I think I would get the cheapest quality of sugar or syrup, which the bees will take readily. For food during confinement, I want the best grades of granulated sugar, and whenever this is used, a proper amount of tartaric acid or cream of tarter should be added to the syrup. I use tartaric acid, and about a level tea-spoonful, or a little more, to every 10 pounds of sugar. Three pounds of water is right for 10 pounds of sugar, unless you wish to make the syrup thinner than ripe honey.

Usually I think it would pay the bee-keeper to perpetuate the life of his colonies until another season, if he has to feed them all they can consume until that time. There may be exceptional cases in which he had better chloroform them all, provided there is no brood to perish in the combs. I trust that this year's experience will fully impress upon the minds of all bee-keepers, that it costs money to produce honey.

I feed by the use of a top-feeder, full size of the hive, with the capacity of 18 pounds to one filling. It is robber-proof, emitting little or no odor from the feed, is proof against daubing the bees, and admits of examination, filling or refilling without coming in contact with the bees, or offering any exposure to robbers. I will add that if you have no honey to feed, and no bee-bread in the hive, or pollen in the fields, I would advise you to expose rye or graham flour to the bees at the same time you are feeding the cane syrup, and also for some time afterward.—James Heddon.

No Surplus Honey.—E. Liston, Virgil City,♀ Mo., on July 26, 1887, says:

In this part of the country the surplus honey crop for 1887 is a ruinous quantity. Unless it is extremely favorable for fall production, it will be as nearly a failure as we have had for 18 years.

Mint and Bed-Straw.—Wm. Robson, Rolla,⊙ Mo., writes as follows on July 24, 1887:

I believe that my bees are being poisoned by something they are foraging upon. Will some of the many bee-keepers give their experience respecting the actions of bees when poisoned? Several new kinds of flowers have made their appearance this season that have attracted the bees in clusters, which I would be glad to know the name of. I enclose two specimens to the editor, perhaps he will give their names. They grow from 8 to 24 inches high. I wish to state that I do not think there is a case of foul brood in the county.

[The specimen with rather large heads is *Pycnanthemum lanceolatum*, one of the mints. It is a fairly good honey-plant—common in waste-places on good soil. The other with a small flower in clusters is *Galium boreale* or bed-straw. This belongs to a noted family comprising the Madder-plant as well as coffee and cinchona or Peruvian bark. It is a common plant; honey qualities not remarkable. Can it be that the bees are injured by *Asclepias* or milk-weed? This is the season of the year for these flowers. Sometimes the bees are caught on the flowers themselves, and sometimes clogged with the pollen-masses to such an extent that they are unable to fly, dropping anywhere, and vainly struggling for release.—T. J. Burrill.]

Half a Crop from Basswood.—Edmund R. Buller, Campbellsport, Ont., on July 26, 1887, says:

Bees have done very poorly here this season. Clover and basswood have not produced more than half a crop, owing to dry, hot weather. Basswood trees were loaded with bloom, yet many of them were scarcely touched by the bees. There will be very little fall honey if we do not get more rain soon.

Plenty of Fall Flowers Expected.—Andrew Craig, Empire,♀ Dak., on July 25, 1887, writes:

Last November I put 2 colonies into winter quarters, and on March 11, 1887, I found one dead from queenlessness. The other came out bright and strong, which I divided on May 27. I bought two half-pounds of bees, one of which has built up immensely. The old colony is storing a little surplus. The first of the season was favorable, but from May 15 to July 15 there was but one shower, so that wild flowers (our only source) were getting scarce. We are now having plenty of rain, which is "booming" the late sown crops, and wild hay, and will make plenty of flowers. Soon goldenrod will be abundant. Last fall my bees carried in honey and pollen up to Oct. 28—one month after heavy frosts. I do not know where they gathered it, as we have no witch-hazel here. Our honey is generally light amber colored, and very thick.

"Quick Drained Honey," etc.—Dr. H. Besse, Delaware,⊙ O., on July 30, 1887, writes:

Mr. Editor:—I am glad that you object to all new names thus far proposed for extracted honey, and yet this name I have always thought objectionable. Just think of combless, uncombed, divided, separated, centrifugal, clear, slung, honey out of the comb, fluid, ex-comb, liquid, etc. Now, sir, you know that this is a fast age, and almost everything is done by machinery and on the double-quick, I shall now propose for your numerous readers, as well as yourself, the following name for consideration. This name I at least consider well adapted, and as appropriate as every one can understand what is meant when we say this is "quick drained honey." This name I propose, as the honey has to drain down on the inside of the extracting can, and does it quickly. This I prefer to "quick strained honey," as in olden times it was all drained or strained honey that was not in the comb; but the drained was the cleanest and freest from dirt and other impurities. The honey crop in this State is almost an entire failure, caused from a cold, backward spring, followed by a hot and dry summer.

[Webster says that the word "drain" is derived from drop, tear, etc. It means to "draw off by degrees; to cause to flow *gradually* out." Honey, when being taken from the comb, is thrown violently out. Drained honey is therefore not applicable; extracted as a name is far superior to drained.—Ed.]

Good Yield from Clover.—H. P. Faucett, Dilworthtown,⊶ Pa., Aug. 1, 1887, writes:

Bees are just "booming" on the second crop of red clover. I have Alsike clover in bloom now that was sown in the wheat last spring. My bees gathered a good crop of cherry-blossom honey. Apple, locust, and poplar, which are the main honey-producing flora, were a complete failure; but clover produced more honey than in any year for 15 years. I had 20 colonies that stored 700 pounds of surplus, nearly all comb. I had 16 swarms. I have taken 800 pounds of surplus, and have 200 uncapped sections besides. I have now 50 colonies with plenty of stores to winter on. Black bees stored no surplus. Italians did the best, Holy Lands next, and Carniolans did middling well.

No Honey, etc.—V. W. Keeney, Shirland,♂ Ills., on Aug. 1, 1887, says:

I have not taken one pound of honey from 40 colonies, and had only one swarm. I have been waiting for sometime to see the "big" reports come in, but everybody seems to be quiet this season. There is no honey in this part of Illinois, and a good prospect to feed the bees and all other stock soon.

Bee-Keeping in Texas, etc.—J. H. Woodman, Stephenville,♂ Tex., on July 25, 1887, writes:

The honey and grain crop in this portion of Texas is another failure. Last year and this year has been the hardest years on bees and people, on account of drouth, since 1860. Cotton is drying up as well as the late corn; early corn is ripe. There is no honey nor grain to spare in this locality. I commenced the bee-business on the improved plan on April 17, 1886. I spent nearly $200 before I could stop, for bees and fixtures, looking forward for the income; but it has not come yet. My bees were poor and weak when I bought them. I fed them 400 pounds of sugar last year, to get them through the winter. I did not lose any, and I had but little increase. This year the queens have stopped laying, and the bees are killing off their drones, and tearing out drone-larvæ. I sowed buckwheat, mustard and rape seed this spring, getting a fair flow of honey and pollen for brood-rearing, and a fair crop of seed. I also sowed some white Dutch clover seed, and some Alsike seed; neither of them did any good. I want to try some sweet clover and alfalfa clover seed. Has any one given them a trial in Texas? Let us hear concerning such plants as will stand the severe drouths of Texas.

Absolutely Pure Honey.—C. H. Chapman, Coboctah,⊶ Mich., on July 28, 1887, says:

Not seeing my favorite name for "extracted" honey yet mentioned, I would suggest that it be called "absolutely pure honey." Would not that fill the bill? I shall try it on the next lot of labels I get. Sometime ago in explaining to parties in a neighboring town what extracted honey was, I called it "absolutely pure honey"—pure as God places it in the flowers, and the bees gather it therefrom; when I received at once an order for a five-gallon crock full. So I have since called it extracted or absolutely pure honey.

[Inasmuch as "absolutely pure honey" would also be applicable to *honey in the comb*, it would not be admissable to adopt it as a name for *honey out of the comb!* It would only confound matters. Suppose an order should be sent to an apiarist or dealer in honey for 100 pounds of "absolutely pure honey;" he could not fill the order without writing for an *explanation*, asking if it was desired to have it in the comb or out of the comb!! Oh, no! such a name is too indefinite and meaningless! It is not half as good as the old name—"extracted!"—Ed.]

Disposing of the Small Crop, etc.—Henry K. Staley, Pleasant Ridge,♀ O., on July 27, 1887, writes:

The honey crop of this part of Ohio seems to be a complete failure, little if any surplus being gathered. Bees built up nicely during white clover bloom, filling the brood-combs and rearing young, but what was the use? About this time the excessive drouth set in, which has been so continuous that there is *nil*, comparatively speaking, from which the bees may gather honey, and the bees may be seen hanging in huge bunches on the outside of the hives. All those who have honey had better hold it, and obtain a good price. Do not send it to large cities like New York, Cincinnati, and Chicago, but dispose of it at home, unless you know *who* and *what* your recipient is.

It is amusing to observe the various hallucinations about sophisticated comb honey in the city of Cincinnati, and its surrounding environs. The prestige of the dirty lies published by petty country newspapers concerning the adulterating of comb honey still seems to be augmenting. No time should be lost in counteracting these lies by our apiarists. True is the aphorism, "Evil news rides fast, while good news baits."

"Expelled" Honey.—R. McKnight, Owen Sound, Ont., on July 30, 1887, says:

If Mr. Demaree wants a new name for extracted honey, how would "expelled honey" suit him?

[As a name, "extracted honey" is infinitely superior to "expelled." The latter, even though quite correct, by its familiar use suggests exile, ejectment, banishment, and punishment. No! we do not want a change, merely—it must be *an improvement*.—Ed.]

Very Poor Season.—H. J. Rogers, Stanard's Corners,♀ N. Y., on July 28, 1887, writes:

In regard to the season of 1887 as a honey season, I can say that it is the poorest I ever knew. The apiarist who has a sufficient store of fortitude to carry him over this year is the "happy man." From 70 colonies I shall get on an average 20 pounds to the colony. This will include the buckwheat, which is coming in now. My bees did well on raspberries for 10 days, and about one week of basswood. The early and continued drouth destroyed almost every vestige of clover. I do not think I have 10 pounds of clover honey, all told. I shall hold what honey I have for an advance, and I hope for a more favorable season next year.

Poor Season—Chaff Hives.—J. G. Norton, Macomb,⊷ Ills., on Aug. 2, 1887, says:

The honey season of 1887 can now be said to have closed. The hot, dry weather destroyed all the clover, so that there was scarcely any honey in it, and burned up everything that we might expect in the way of fall flowers. Bees will not have enough for winter supply, and will have to be fed, or perish. This is the worst season I have seen in the 14 years that I have kept bees. In reading the different letters objecting to chaff hives, I cannot but conclude that those persons have never used a genuine chaff hive, or they would have been more successful. I have been testing them in this changeable climate for six years, and I find them the only hive that needs no shade in summer or protection in winter; and my bees have always kept strong in them, and ever ready for the honey-flow when it comes. This is a good time to test them, as regarding heat, as the thermometer has indicated 96° to 104° in the shade for several weeks. It will be very easy to find a market for all the honey produced in the United States this year.

Section-Case—Bees and Grapes.—Leonard Hammersmith, Amana,○+ Iowa, on July 30, 1887, writes:

Mr. Editor:—I have sent you one of my section-cases for examination; also a few "views" of our "Arbor Apiary." My hives are square-edge, with a bee-space above the frames, so that I can lay on a zinc honey-board, with a rim of wood ¼x1⅛ inches all around, and pile up 1, 2, 3, or more honey-cases thereon. Our bees are on all sides surrounded by grape-vines. As I am often asked by visiting bee-keepers if they do any harm, I would say no, they are a benefit. If Concord grapes crack, as they generally do by wet weather in the fall, the bees suck the overflowing juice and prevent rotting. I can prove by fifty witnesses that bees will never hurt grapes. We have within 100 yards of the apiary, Delaware, Iona, Brighton, Catawba, Isabel, Champion, Concord, and other kinds of grapes.

[The section-case is placed in our Museum, where there are several others very similar in all the essential points. The views of apiary are placed in the Bee Journal album.—Ed.]

Severe Drouth, etc.—D. Millard, Mendon,♀ Mich., on July 29, 1887, writes:

Fully three-fourths of the bees in this vicinity perished during the winter and spring, and from what is left we have obtained only about one-fourth of a crop of honey so far. The blooming season came on unusually early, and the bees were not in readiness to gather the little nectar that was secreted. The prevailing winds were mostly from the northwest, and very dry, and to-day we are suffering from the severest drouth known here for many years. Everything is dried up, and I am feeding my stock out of the barn, and my nuclei colonies of bees from honey gathered last year.

Ducking for Covers—Pure Honey.—H. C. Gifford, Morris,♁ Ills., on July 29, 1887, writes:

I have always covered my bees with shingles and cut air-holes in them to admit of ventilation. This year I use 10 ounces of ducking to cover the brood with. Will that admit enough ventilation, or must I cut holes in that to let the breath and steam of the bees escape, so that the hive will be dry and free of bad air? I had no experience in the use of ducking for covers, till this year. I like it well for summer use. I winter my bees on the summer stands, the caps being filled. The American Bee Journal has been worth to me fifty times its cost, and I take great comfort in reading it. My bees have done nothing this year. From 25 colonies I have taken only 60 pounds of comb honey. Talking about changing the name of extracted honey, I think of no name more appropriate than "pure honey" instead of extracted honey.

[Why use the word "pure" before "honey," meaning clear? Is not that in the comb "pure honey," too? Would it not be better to call it "clear honey," to distinguish it from that in the comb? It is all *pure*, but not all in the comb.

Ducking covers for the brood-frames will need no holes cut for veutilation.—Ed.]

No Difficulty in Naming Honey.—H. B. Geer, Nashville,♁ Tenn., on July 29, 1887, writes:

I find no difficulty in naming my honey. When I say to a customer "10 pounds of honey," it is understood that I mean *honey*—not comb or wax; and when I say "10 pounds of comb honey," they know that I mean honey in the comb. In my estimation that which we call "extracted honey" is entitled to the simple, pure, and sweet name HONEY. If not, why not? Again, if honey in the comb is not comb honey, what is it? Why then put a handle to that which needs it not. Let the public understand that honey is simply *honey*, and comb honey is honey in the comb. Put the prefix where it will not be questioned.

[That is just what we suggested on page 435, a month ago, and we like it better than anything suggested so far.—Ed.]

Basswood Honey, etc.—Edwin Hubbard, Oil City,+○ Wis., on Aug. 3, 1887, says:

I had 56 colonies to start this season, and have increased them to 73. So far I have taken 1,600 pounds of extracted or combless honey, and 130 pounds in sections. The most of it was gathered from basswood. Bees are getting but very little honey at present, it being too dry. Honey sells for 10 to 15 cents per pound.

Satisfied with the Crop.—Wm. Malone, Newbern,♀ Iowa, on July 30, 1887, writes:

I wintered 42 colonies of bees successfully last winter in a bee-cave made purposely for them. But I took them out too early—March 10. I lost 4 colonies by spring dwindling, and 6 more came nearly dying, but they have built up, and are ready for the fall honey, if we ever get it. I worked 20 colonies for extracted honey, and 12 for comb honey. Up to July 4 I had taken 1,500 pounds of nice, thick extracted honey from 15 colonies. I have also taken off 200 one-pound sections, and have some 400 or 500 pounds to take off yet; most of them being only partly filled. I was expecting too much from linden, and put on too many sections for the crop. I am satisfied with my crop, even if I do not get any fall honey. I have increased my apiary to 58 colonies by natural swarming. My bees worked well on red clover this season; they have honey enough to winter on.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—New, in 1-lb. sectiona, 15@16c.; one lot sold for 17c. Comb honey crop of 1886 is exhausted.

BEESWAX.—22o. R. A. BURNETT.

July 20. 161 South Water St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 14c.; dark 2-lbs., 11@12c. choice white 1-lbs., 16@18c.; dark 1-lba., 12@14c. Calif. white 2-lbs., 14c.; extra C 2-lbs., 12@13c.; C 2-lbs., 10@11c. Extracted, new crop, choice white, 8@10c.; dark, 5@7c; Calif. white, 8c.; amber, 8@7c. Prices firm.

BEESWAX.—20 to 22c.

Aug. 3. HAMBLIN & BEARSS, 514 Walnut St.

CLEVELAND.

HONEY.—Choice white in 1-lb. sections, ought to bring 15@16c. Extracted not wanted. Waiting for the new crop, but it is very short and none ready.

BEESWAX.—28c.

July 26. A. C. KENDEL, 115 Ontario St.

DETROIT.

HONEY.—Some new white comb sold at 12½ cts., but proepects for better prices are good.

BEESWAX.—23c.

July 20. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5¼@5½c; light amber, 5@5¼c.; dark, 4½@5c. Comb, 2-lbs., 10@14c.; 1-lba., 10@15c. Market firmer and prices improving.

BEESWAX.—20@23c.. Market firm.

July 19. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.

BEESWAX.—21c. for prime.

Aug. 2. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4½@5c.; amber and candied, 4¼@4⅜c. Receipts light; poor crop.

BEESWAX.—21@23c.

July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice new 1-lbs., 14@15c.; old 1-bs., 12@12½c.; 2-lbs. not in demand, 10@11c. White extracted in kegs and barrels, 7@7½c.; in small tin cans, 7½@8c.; dark in kegs and barrels, 6@6½c.; in small tin cans, 6½c. Market ready for new crop.

BEESWAX.—25c.

July 21. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14o. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.

Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13o. Extracted, 5@7o. Sales very light. Fancy white extracted in good demand, but supply limited.

BEESWAX.—26 cts. per lb.

July 11. BLAKE & RIPLEY, 57 Chatham Street.

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00 ; 250 for $1.50 ; 500 for $2.00 ; 1,000 for $3.00 ; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents ; if a whole piece of 12 yards is taken, $2.25 ; 10 pieces, $20.00 ; if ordered by mail, send 15 cents per yard extra for postage.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen ; if sent by mail, add 1 cent each for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

Fire.—We are all "burned out." On last Saturday, at 2:30 a.m., fire was discovered in our shop and store. The alarm was given, and all was done that could be done, but it could not be saved ; $3,000 worth of goods was burned up, representing years of toil to us.

I want to say through the AMERICAN BEE JOURNAL, that we will be unable to fill any more orders this season for any goods except BEES and QUEENS, for which we should be thankful to recive orders.

J. B MASON,
Mechanic Falls, Maine, Aug. 1, 1887.

◆

☞ The Cortland Union Bee-Keepers' Association will hold their annual basket picnic at Blodgett's trout-pond in Cortland, N. Y., on August 23, 1887. All interested in bee-culture, with their families, are cordially invited to attend.

D. F. SHATTUCK, Sec., Homer, N. Y.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail. 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

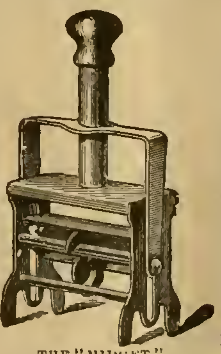
BY RETURN MAIL!

SIX Warranted Italian Queens	$5 00
Fourteen Warranted Italian Queens	10 00

☞ Safe arrival guaranteed.
28Atf H. ALLEY, Wenham, Mass.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

SELF-INKING RUBBER-STAMP.



THE "MIDGET."

2,000 Impressions for 10 cts. Will last a life-time. Everybody needs one. It prints indelibly Envelopes, Letter heads, Postal Cards, Wrapping-paper, Bags, Sections, Crates, Cartons, Bedding, Robes, Clothing—everything. Your name, occupation and address, with the machine complete, sent free by mail, for $1.00 P. O. Money Order. Extra ½-oz. bottles of ink for 2c. in stamps. Address,

GEO. T. HAMMOND,
Brockport,
Monroe Co., New York
26Etf

WANTED,

ALL the Bee-Men who see this advertisement to send us hundred pounds of 1-lb. and 2-lb. sections of White Comb Honey, as sample, by Express, stating quantity and price for same. Cash, delivered in Kansas City. **CLEMONS, CLOON & CO.,**
Cor. 4th & Walnut, Sts., KANSAS CITY, MO.
30A4t

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25**. Liberal discount to dealers and to clubs.

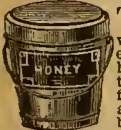
A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

NEW ONE-POUND HONEY PAIL.



THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

PATENTED, June 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

ROUGH ON RATS

TRADE MARK

DON'T DIE IN THE HOUSE

Gone where the Woodbine Twineth.

Rats are smart, but "ROUGH ON RATS" beats them. Clears out Rats, Mice, Roaches, Water Bugs, Flies, Beetles, Moths, Ants, Mosquitoes, Bed-bugs, Insects, Potato Bugs, Sparrows, Skunks, Weasel, Gophers, Chipmunks, Moles, Musk Rats, Jack Rabbits, Squirrels. 15c. & 25c.

HEN LICE.

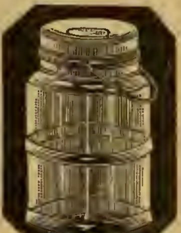
"ROUGH ON RATS" is a complete preventive and destroyer of Hen Lice. Mix a 25c. box of "ROUGH ON RATS" to a pail of whitewash, keep it well stirred up while applying. Whitewash the whole interior of the Hennery; inside and outside of the nests. The cure is radical and complete.

POTATO BUGS

For Potato Bugs, Insects on Vines, Shrubs, Trees, 1 pound or half the contents of a $1.00 box of "ROUGH ON RATS" (Agricultural Size) to be *thoroughly* mixed with one to two barrels of plaster, or what is better air slacked lime. Much depends upon thorough mixing, so as to completely distribute the poison. Sprinkle it on plants, trees or shrubs when damp or wet, and is quite effective when mixed with lime, dusted on without moisture. While in its concentrated state it is the most active and strongest of all Bug Poisons; when mixed as above is comparatively harmless to animals or persons, in any quantity they would take. If preferred to use in liquid form, a tablespoonful of the full strength "ROUGH ON RATS" Powder, well shaken, in a keg of water and applied with a sprinkling pot, spray syringe or whisk broom, will be found very effective. Keep it well stirred up while using. Sold by all Druggists and Storekeepers. 15c., 25c. & $1.
E. S. WELLS, Chemist, Jersey City, N. J.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey,	per dozen,	.....	**$1.60**
" 2 pounds "	"	.....	**2.00**
" 3 " "	"	.....	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen..	$0.80
6 Queens..	4.50
12 Queens..	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

ITALIAN Queens by return mail, Tested 90c.; Untested, 50c., or $5.50 per dozen.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin, Hartford, N.Y.
6W(3tm)40t

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS received many kind letters in regard to the excellency of his little book, **"The Production of Comb Honey;"** and it is with pleasure that he publishes the following "sample:"

ST. LOUIS, Mo., April 16, 1887.

FRIEND HUTCHINSON.—Your little book has been forwarded to me from home, with the statement that "It has been read by every member of the family;" and, judging from the numerous underscored lines and bracketed passages, it was thoroughly appreciated.

I have been experimenting somewhat in the same direction, and while my experiments were by no means so thorough and exhaustive as yours, they make me an earnest supporter of the beliefs and practices laid down in your book, which I value above price, and can endorse every word of it. Sincerely yours, DWIGHT FURNESS.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
31Atf

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

"Boss" One-Piece Sections,

MANUFACTURED BY

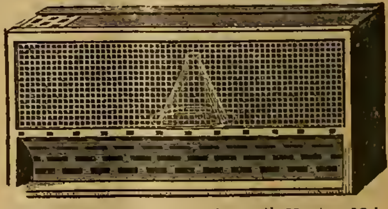
J. Forncrook & Co., Watertown, Wis

PATENTED, June 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent by mail for 10 cents.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Aug. 17, 1887. No. 33.

Mr. and Mrs. T. W. Cowan are spending a few days in the White Mountains, on account of the extreme heat. Leaving there they will visit Montreal, and thence journey westward. They return to England in October, from New York, by the Umbria. Mr. Cowan writes us that he has been much pleased with his visit so far, and adds: "I was glad to see the apiaries of Capt. Hetherington and Mr. Elwood."

Mr. B. F. Woodcock, of Pleasantville, Iowa, died on Aug. 4, 1887. He was an extensive apiarist, and had a large circle of bee-keeping friends. He died quite suddenly of a bowel trouble, brought on by the extremely "hot" weather of the past few weeks.

We have heard of quite a number of others who were overcome by the heat, but so far this is the only fatality reported from it.

The Minneapolis Industrial Exposition will open at Minneapolis, Minn., on Aug. 31, and close Oct. 15, 1887. We have received a nice chromatic poster, making this announcement.

Quite Unnecessary Now.—Mr. C. H. Dibbern, in the *Plowman*, asks the following very pertinent questions:

> How about the honey trade this fall? Will it be necessary to form a combination to control prices? Will not rather the cry be, "Where can we get some of that beautiful white clover honey that has become such a necessity in the family?" The supply will be short indeed, and I hope that those bee-keepers so fortunate as to produce any crop, will ask a reasonable price for it, for they can surely get it.

Yes, by all means, get good prices for the very little honey which can be sold from this year's crop.

It will be well to talk the matter over at the Chicago Convention this fall, and, perhaps, arrange for the future; but no "combination" will be needed to obtain full value for every pound of honey produced during the present season. The "future" demands our attention and resources in making plans, just as much as the present.

The Head of the Bee-Family.—In an address on bees before a New York horticultural society, by Mr. A. B. Williams, the following passages occur:

> The queen, or mother-bee, is the most remarkable among all the bees of a colony. The early bee-fathers held her to be a male. Virgil always calls her "rex" (king). The German name also, "weiser" (guide or leader) proves that she was thought to be a male, and was erroneously believed to lead off the swarm, showing the way. Though this error was long ago abandoned, there are those still who assert that there is a king. Yet any one in observing a colony can see at once that she is superior to all others. The queen is of greater length by about one-half of the body, provided with longer and yellow feet, the only one of its kind in a colony. If each of the workers, furnished as it is, with a sting, cheerfully risks its life for its queen, this is from love only, as the queen neither governs, commands, gives orders, nor advises. All she does is to lay an astonishing number of eggs, from 1,000 to 3,000 in a day, and fix each of them accurately by one end of its oval figure to the upper back wall of the cell. It is a remarkable fact, too, that the queen, though able to eat without the aid of others, does not usually do so, but is fed all her life by the workers. It is probable that this food, being excellent in quality and easy of digestion, is prepared by the workers for the queen herself.

Rain has come at last, but not until nearly everything in the Northwest was burned up by the extreme heat of the past two months. Never before within the memory of the oldest inhabitant has there been so much hot weather, and extending for so long a time. The rains of last week were general, and came just in time to save a great calamity. The wells and other water sources were nearly all dried up, the prairies were on fire in nearly all directions, thousands of families were deprived of homes by this devouring element, many of the crops not already burned up by the rays of Old Sol, were consumed by the flames extending from the prairie fires. Just then black clouds appeared, and Mother Earth was drenched with water from the heavens. Let us hope that we may never experience another such a summer as the present—calamitous alike to all crops, as well as to the bees and bee-keepers.

August, anciently considered a "lucky" month, has not brought prosperity to the bees this year. June, July and August of this year will long be remembered as the hottest and driest for ages. August, before the time of Julius Cæsar, was called Sextilis—the Sixth—and it had but 29 days. In reforming the calendar, Julius added one day to Sextilis, making it 30 days in length. His successor, Augustus, finding Sextilis a remarkably "lucky" month in his career, added another day to it, shortening February correspondingly, and changed the name Sextilis to August.

Let us hope that the next time August comes around, the weather will be more propitious for honey as well as all other crops.

Recently a man down in Kennebunkport, Maine, says an exchange, captured 800 bees while they were swarming in the woods. He daubed himself with honey, the bees alighted thereupon, and in this way he transported them home without receiving a sting.

Seasonable Hints.—Mr. C. H. Dibbern, in the *Plowman*, gives the following hints for this month:

> Robbing may now be expected, and should be guarded against. If you have weak or queenless colonies, break them up and remove the hives to a safe place. Do not expose honey where the bees can get at it, or it will demoralize your whole apiary. It is wonderful how soon bees discover that honey can be had, and how persistent they are.
>
> From all quarters comes the same story, few swarms and no honey. From all I can learn about the honey crop, there is a general failure all over the Western States. Even California reports indicate about one-fourth of a crop. Canada and the Eastern States show up better, and will likely produce a fair crop of nice white honey.
>
> I had anticipated some surplus from the linden, but although it bloomed profusely, and the bees worked on it from daylight to dark, they entirely failed to put any honey in the sections. Indeed, so small was the quantity gathered from the linden, that I had a strong colony actually starve during its bloom.
>
> Now the only resource for the next few weeks, is the sweet clover I have planted for the bees. It is now in full bloom, and any time of the day it is covered by myriads of bees.

Poor, Poorer, Poorest!—The general verdict is that the present season has been the *poorest*, for honey-production, of any for many years. The wholesale and commission men are already looking out for supplies of honey, and we advise all having any to sell to put a good round price on it, and "stick to it." There will be no trouble in selling all the honey on hand at good figures. *Do not sacrifice it!*

Who Can Tell the Value of a Smile? asks an exchange.—It costs the giver nothing, but is beyond price to the erring and relenting, the sad and cheerless, the lost and forsaken. It disarms malice, subdues temper, turns hatred to love, revenge to kindness, and paves the darkest paths with gems of sunlight.

These Shows will be held at Chicago from Nov. 8 to 18, 1887, viz: American Horse Show, American Dairy Show, American Fat Stock Show, and American Poultry Show. During these shows the Union Convention has been appointed to be held. See notice in another column.

The September number of Frank Leslie's Sunday Magazine brings together a large number of pleasant articles combining instruction and entertainment, and all breathing forth a high moral spirit, though carefully avoiding the teaching of any special religious doctrines. Among the important articles may be found one by Walter Edgar McCann, on "The Rise and Growth of our National Capital," which is fully illustrated with portraits and views of the City of Washington, and those who have made it famous. The two serial stories both keep up and indeed increase their interest, and the short articles and poems are very good and entertaining.

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Frames Partly Filled with Pollen.

Query 456.—What is the best way to treat frames that are partly filled with pollen, to such an extent that no honey is stored in one-third of the cells?—F. R., Texas.

Use them for early spring breeding. —G. M. Doolittle.

Put them to one side till early spring, and they will use it in brood-rearing.—H. D. Cutting.

Give them to a breeding colony. If the pollen is too old, you can only melt them up.—Dadant & Son.

Put them into the middle of the brood-chamber in the month of June. —James Heddon.

My plan is to hold over such frames, and then place them in the hives in early spring, and let the bees clean them out.—J. P. H. Brown.

Leave them for the bees; they need this pollen. I have never had too much pollen in my hives.—A. J. Cook.

In this locality I have never known bees to gather more pollen than they could profitably make use of; and we often get frames of comb having apparently too much pollen.—G. L. Tinker.

Keep them until spring, and then give them to the bees. Their places may be filled with frames of foundation, and the bees fed if necessary.—W. Z. Hutchinson.

It depends upon circumstances. In my locality I only need to give such a frame to a good colony, and it will be properly taken care of. If many of them, one or two could be given to each colony.—C. C. Miller.

Keep them until spring, and give them to colonies that need stimulating to produce early brood. We are not troubled with excess of pollen in this section, and have no trouble whatever in getting all that is stored worked up into young bees.—J. E. Pond.

Exchange them for combs in the brood-nests that have no pollen in them. I have frequently lost honey by putting combs partly filled with pollen in the cases to have honey stored for the "honey machine." Bees will not remove the pollen from the combs when storing surplus. In the spring of the year, when the combs are mostly empty, both stored away, and in the brood departments, they should be sorted out and the pollen-filled combs should be put in the brood-nests. The bees will clean out the pollen if for nothing more than to give room for the brood. I simply "swap" the pollen-filled combs for combs in the brood-nest that have no pollen in them.—G. W. Demaree.

Give them to the bees when they are rearing brood.—The Editor.

Bee-House for Wintering.

Query 457.—I want to arrange a bee-house for wintering bees. The house is built, and it is 7x9 feet inside and 6½ feet high; and has boards and siding on the outside, and tar paper inside. On the south side is a glass wall or front. I am going to put in a wall 4 inches from the inside of the glass wall, of flooring, and seal it, and have a double door. This will now be sealed all over with tar paper between the walls. Then I will put common building-paper all over, ceiling and all. I will put a 4-inch ventilator at each end of the house. Will this make a good bee-house? or would it be better to cover the glass front over? I thought by leaving it and putting a 4-inch wall inside of it, it would warm the house greatly, and be a good thing. There will be no window in it, but will be perfectly dark.—Herman, Wis.

It will make a good repository.—J. P. H. Brown.

We have no experience with bee-houses for wintering. We prefer a bee-cellar.—Dadant & Son.

For Wisconsin I should much prefer a cellar. See page 439.—A. J. Cook.

I think you will never regret making the constructions you describe, unless on account of expense.—James Heddon.

The heat secured as the result of the glass side, if there should be any, would be too variable. From the earth is the place to get heat for a bee-cellar in winter.—W. Z. Hutchinson.

You are treading on comparatively new ground, and will take some risk in making the experiment. I should feel a good deal safer with the bees in a good cellar.—C. C. Miller.

I have never used a bee-house, but judging from the reported experience of those who have, my opinion is that they are not worth the expense of their construction, as the interest on the money invested will pay for losses. I speak, however, from my own stand-point only, and have wintered my bees on the summer stands for years without loss.—J. E. Pond.

Such a house as you describe would not be frost-proof in zero weather, and unless you resort to artificial means to keep up the temperature to about 45°, your bees had better be wintered on the summer stands. Any one acquainted with the "reports on wintering bees," must have noticed that *cold* in a cellar or bee-house is more destructive to bee-life than cold in the open air, that is in the bee-yard.—G. W. Demaree.

I should prefer common building-paper in place of tar-paper for a bee-house, and the reverse for a poultry house. I would prefer one ventilator 8 inches (not 8 feet) in the centre reaching to within 2 inches from the floor. Your glass front will help warm the building, but you should provide some way to cover over the glass front in very cold nights; also when it begins to get warm in the spring, old carpets would do.—H. D. Cutting.

As cold penetrates glass very readily, it should be covered on days when the sun does not shine. But we have so few days in winter that the sun shines out clear, that I do not think such an arrangement could be relied upon to keep up the temperature in a bee-house.—G. L. Tinker.

I have had no experience with a bee-house, but I should guess that a window should have shutters over it, so that they could be closed in a warm time, else the house might be almost too warm. On cold, sunshiny days open the shutters if the room needs warming. This is all guess-work, however.—G. M. Doolittle.

That will doubtless make a good winter repository for the bees.—The Editor.

Chaff Packing over the Frames.

Query 458.—Where bees are wintered in Southern Michigan on the summer stands, with 3 or 4 inches thick of chaff packing between the hive and the outer case, how many inches thick of chaff should there be placed over the top of the frames, so the moisture may pass off freely?—Pittsford, Mich.

Six inches.—W. Z. Hutchinson.

I use about 3 inches.—G. M. Doolittle.

The moisture will pass off through any amount of chaff.—Dadant & Son.

I use a chaff cushion about 5 inches thick, and I have no trouble with moisture.—H. D. Cutting.

The moisture will pass off freely through almost any thickness of chaff packing over the top. Eight inches would be preferable to four, and two feet would be excellent. — James Heddon.

It would depend upon the strength of the colony, and the ventilation above the chaff in the upper story. Four inches of packing does very little good here, when placed at the sides, but it seems to be about right over the brood-nest.—G. W. Demaree.

I do not know, but here in eastern Massachusetts, where the mercury ranges anywhere from 20° above to 20° below Fahr., I find that 5 or 6 inches thick of forest leaves pressed loosely, is amply sufficient, and I should judge that what is good here, would also be good in Michigan.—J. E. Pond.

If a thin, unpainted board is placed over the brood-chamber the moisture will pass off through several inches of chaff. But if the bees are not able to keep up a proper temperature in the hive, no moisture will pass upward into anything. It is the retained heat of the cluster that drives off all moisture. A thin board is the best thing to retain the heat in outdoor wintering.—G. L. Tinker.

The packing could hardly be too thick—but 6 or 8 inches will be far preferable to 3 or 4.—The Editor.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; ○+ east; +○ west; and this ♂ northeast; ~○ northwest; ○~ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Hot Weather—Introducing Queens.

G. M. DOOLITTLE.

Hot, hot, hot, has been the order of the day for the past six weeks, and although the prespiration flowed freely from every pore, and the sun beat down fiercely on me all day, I rather enjoyed these days of toil in the apiary until about a week ago when the flow of nectar stopped so effectually that not a drop could be obtained. For a day or two the bees behaved very well, but hot weather with nothing to do soon let the evil disposition loose in them, and they seemed all of one accord to start out on a marauding expedition.

The first thing that greeted my ears in the morning, at early dawn, was the shrill notes of bees prying about in every nook and corner on the premises, and the same was the consoling and all absorbing music at twilight. Never before did I see such persistent exertions made by bees to plunder the stores of each other as I have the past week. This, with all of my other duties, kept me on a jump from "early morn till dewy eve," and to save my nuclei from being plundered was the all-absorbing thought of the hour. I must save these, for I needed from 30 to 35 queens a day for shipping, and the getting of these out of the hives only whetted the appetites of the robbers.

At last something practical suggested itself. It was this: Place the combs at one side of the hive, and have the entrance at the other. No sooner thought than at it I went, doing it at the time each queen was caught, all being done under a bee-tent, for nothing could be done without the tent. This made the robber bees look shy, for if any succeeded in passing by the outside guards, it was met on its travels through empty space, by sentinels so numerous that it was glad to take refuge in flight. In this way my nuclei have been preserved, except a few weak ones—too weak for any time except in a good honey flow.

The next thing to be done was to finish taking off comb honey—yes, we have a little of that precious stuff here, about one-third of a crop—and as the tent cramped us so for room, I tried one or two hives without it. An awful state of affairs is no name for what this created! In taking the section cases from the hive a little honey was exposed where brace-combs had been built, and the robbers were after it almost in a cloud. Then a struggle ensued, the result of which was many stiff, but not cold, corpses covered the ground. It is hardly necessary to say that the writer escaped with his life.

I now took to the tent, and after a little I made it go very well. The mode of operation was as follows: The folding tent was placed over a hive having sections to come off, when the cover was taken off and placed on the ground in one corner of the tent. Upon the cover was placed a sheet, such as all bee-keepers should have in the apiary. A deluge of smoke was now poured down between each row of sections, when I waited a moment for the bees to run below, but not long enough for any to return, at which time they were taken off, and by the shaking made, most of the few remaining bees shook out, when the surplus arrangement was placed on the sheet, and the same wrapped snugly about it. An enameled cloth quilt was now placed over the frames, and the cover put on. I now removed the tent, placed the wrapped up sections on a wheelbarrow which stood waiting, when I was ready to proceed to the next hive. The robber bees howled about the tent as long as the hive was opened, but upon closing it and wrapping up the sections, they dispersed. In this way I work right along, accomplishing what is necessary to be done.

One other item: During one of these busy days, a queen-breeder wished to exchange queens with me, so without a word of notice he sent on his best queen saying, that he "hoped it would not inconvenience me." Well, it did not, although five years ago I should not have known exactly what to have done with a queen coming thus unexpected. But now I went to a hive which was tiered up for extracted honey, having the front side covered with bees, and having my nucleus box in my hand. After getting things arranged a little, the tent was let down over us (bees, hive, things, and myself, I mean by us, for I have not had an hour's work outside of my own, in the apiary this season), the hive opened, and I soon had the frames out of the upper story standing around the hive with the bees filling themselves with honey. As there was a queen-excluding honey-board above the lower story, there was no danger of getting the queen. Oh, how the robber bees did howl about the tent, and as I waited a moment or two for the bees to load up, I enjoyed a good laugh at the expense of those would-be but baffled thieves.

The bees were now shaken from the frames into the box, the frames put back into the hive, and all nicely closed. The buzzing of the bees in the box kept the robbers about the tent this time, so when I lifted the tent a cloud of them took to the wire-cloth covering of the box. At the bee-cellar door I dispersed them with smoke, and quickly drew into the cellar. This was at 10 a.m. At 3 p.m. the queen was dropped in with the caged bees, and at 4:30 a.m., the next day, they were hived on two frames of hatching brood and two of honey. In 24 hours this choice queen was laying nicely, and is the mother of what will be a good colony of bees in the fall.

I saw, a day or two ago, from the pen of one of our most noted writers on bee-culture, that "no infallible way to introduce a queen had been found." If he will try the above plan, it is my opinion that he will never be heard saying so again.

Borodino,⊙ N. Y.

Apiculturist.

Race and Variety in Bees.

PROF. A. J. COOK.

As is commonly observed, all animals tend to vary. How seldom we see two individuals of our most distinctive breeds or races of cattle, like the noted Angus, the Devon, or the Herefords, that are precisely alike. These variations, which are always more or less transient, are not sure to be reproduced. We call them mere varieties.

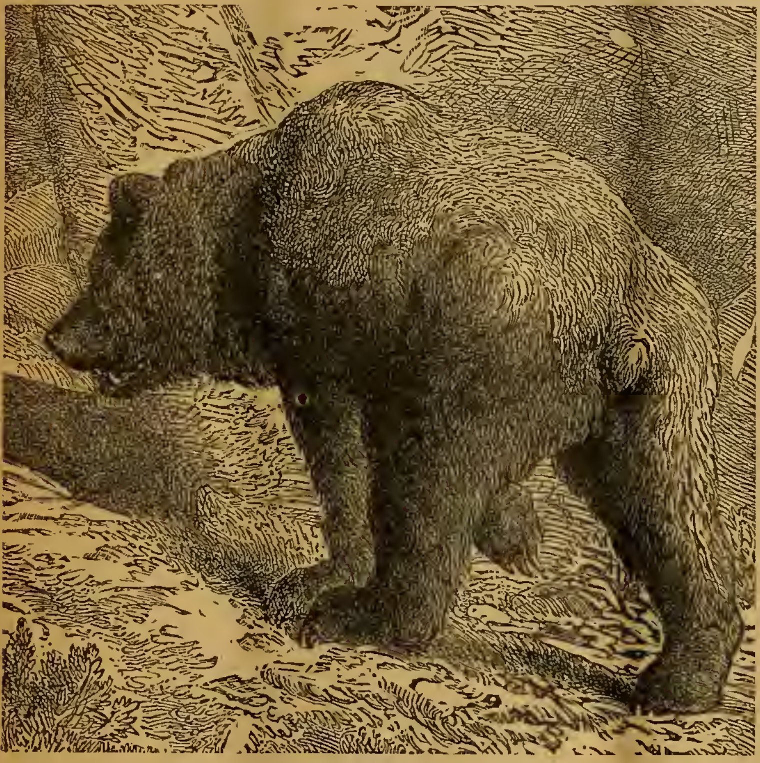
Now let us suppose that some expert breeder who has an ideal animal in mind selects from these varieties of only such animals as point towards his ideal. He will, after a series of years, produce animals which possess marked characteristics, which have been retained so long that they are quite permanent. The longer they have been held by careful selection, the more permanent they are, and the more certain they are to be reproduced in the progeny of their possessors. Such animals form a race, or breed. *Such* animals will *vary*, and so we shall have varieties within the race. The more fixed the race, the less frequent and the less startling will be these variations. Every breeder of cattle and horses, etc., knows and acts upon the fact, that to maintain the excellence and most desirable characteristics of any of our breeds, care, selection and a keen insight and observation are all-requisite. These very variations make great improvements ever possible; they also point to degeneration, unless caution and intelligence push it aside.

Our Italian bees are surely a race, though made so by the careful selection of nature. Those who hold that the Italians do not breed as true to type as any of our best breeds of sheep or cattle, may well look about them, for impure mating is surely the deceiver that has misled them. Nor is it true that the excellence of the Italians will be maintained without careful breeding. If the possibility of degeneration characterized only varieties and not races, then we should have no races. Albino bees are varieties; but if we should select long and carefully with white fuzz only in view, we might soon change this variety characteristic into the more fixed one of race.

The practical point to be drawn from all this is obvious. Messrs. Alley and Demaree, in their excellent articles, have emphasized none too vehemently the necessity of care and intelligence in selection, and pains-taking in all the work of breeding.

The great work of Major Hallett, of England, in developing very valuable races of wheat, if I may use the expression, is full of important suggestions to bee-keepers. I have often thought and stated that the most hopeful path towards the progressive apiculture of the future lies through the improvement of our stock by following the principles as laid down and followed by all of our most successful breeders whether of plants or animals.

Agricultural College, Mich.



THE HONEY-EATING BEAR OF CALIFORNIA.

Exchange.

A Grizzly Bear and the Bees.

SCENE IN A CALIFORNIA APIARY.

The Hutchinson brothers have a large apiary up at Victor Tejunga, says the Los Angeles (Calif.) *Express.* It is an isolated place, far from real-estate booms and the haunts of men. But it is a good place for bees, and there, as a rule, they toil unmolested except by their owners, the Hutchinson boys. The country is romantic.

The quiet life of the little rural retreat was turned into the greatest excitement last Thursday night. While the Hutchinsons were asleep and dreaming of the great sums of money they would make this season, a stranger entered the camp. He was not slow in making his presence felt and heard.

The sleepers were suddenly awakened by sounds that suggested a small cyclone raging among the bees. One of the men got up, looked out of the window, and what was his consternation and terror to see the faint outlines of a huge, brown-colored monster upsetting the bee-hives and working destruction with property that required the toil and economy of a number of years to accumulate.

The surprised spectator hastened to his brother's bedside and told what was going on in the apiary. The two rushed out, one taking his rifle. The bear was evidently hungry, for he made savage lunges at the boxes filled with delicious honey. He would take a few mouthfuls out of one frame and then go for another.

The Hutchinson boys concluded that if they did not act on the instant the bear would soon leave them without an occupation. The gun was leveled and discharged. The ball found its way through the thick hide of bruin back of the left shoulder. It was evidently almost a "center-shot," for the animal fell. But he remained on the ground but a second. He arose, enraged with pain, and made frantic plunges at the nearest hives. Meanwhile the men advanced a little. The bear caught sight of them and made a rush at them. When within 20 feet of where they stood his progress was arrested by another leaden messenger. It struck a vital part, and once more the huge bear fell. This time he did not get up.

A third ball was put into his side, which caused his death. Upon examination it was found to be a grizzly cub about two-thirds grown. Next day he was dressed and weighed. The scales tipped at 700 pounds. This is the second or third bear ever killed or seen in that section.

For the American Bee Journal.

The Solar Wax-Extractor.

G. W. DEMAREE.

I commenced my experiments with solar heat to melt and separate wax and prepare it for use, in the fall of 1881. Flat melting-pans, and perforated holders over the pans, and all like devices look more ingenious than they are really useful and effective. None of these old devices will separate the wax from old combs in quantity and quality to pay for the trouble. They do some better with the soft cappings that come from the honey-knife; but upon the whole they are no improvement over the Swiss steaming apparatus, which, under my skill, is well-nigh a failure to separate the wax from old pollen-filled combs, and old combs of any sort whatever.

After I invented my cylinder-form melting-pan, and put my improved solar wax-extractor in operation, I was astonished to see how much good wax I had been throwing away. The cylinder-form pan gives double drainage to the melted wax, at the sides of the pan, and down its centre towards the wax moulds at the "dip" end of the pan. When the old combs are hot and melted down, they are broken up with a paddle, and the mass is drawn up the sides of the pan, making an opening in the centre of the pan lengthwise with it, so that the hot wax, more subtile than the refuse, drains down the sides of the pan, and down into the wax moulds. The "pitch" to the pan is obtained by blocking up the legs at the north end of the frame or box. A little experience will soon enable any one to regulate all these matters to the best advantage.

When rendering cappings, the pan must set nearly level if the weather is very hot, otherwise the melted propolis will slide down with the wax and honey, which cannot be entirely avoided, but if not in excess, it will settle under the cake of wax. When rendering old combs some water is put in the wax-molds to give room for the sediment under the cake of wax. When rendering cappings, the honey they usually contain makes water in the molds unnecessary.

I have thus particularized to answer letters of inquiry from persons interested on this subject. The several experiments that I have been conducting this season with solar heat, has led me to believe that this powerful agency is capable of serving bee-keepers in many ways heretofore undreamed of, when inventive genius brings it under proper control. I have found that combs infested with worms and moths' eggs can be heated in the solar apparatus till every moth worm and egg is destroyed, without damaging the combs perceptibly.

Granulated honey can be reduced to the liquid state, leaving it with all the natural smoothness and flavor of new honey, or more nearly so, than by any other method known to the art. Beeswax can be bleached and moulded into small cakes for the retail trade. I can take dark, green, inferior-looking wax, such as is turned out by the Swiss wax-extractor from old, dark combs, and by repeated melting in the solar apparatus, change it to nice yellow wax.

You may drain the cappings in the usual way, and then wash them (as many persons do to utilize the adhering honey in vinegar making), and after all that, they will yield a surprising amount of honey under solar heat. But the solar apparatus saves the labor of the mussy job of washing the cappings. It will save every ounce of the honey. Messrs. Dadant & Son have frequently referred to the fact that the refuse of old combs hold on to the wax with persistent tenacity. Try any method of rendering old combs, and it will be found that they are right about it. The improved solar apparatus is the only device known to me that will separate the wax; but it must be kept at work at it every sunshiny day. It will bring out the wax without cost, and but little labor.

I have found that the heating power of the apparatus can be increased by flaring the end of the box in which the wax-moulds are placed, and which points towards the sun. The slanting end of the box brings the sun's rays more directly on the wax-mould, keeping the wax in the melted state and floating it above the dirt, etc., so that the cake of wax will come out of the moulds leaving the dirt, etc., under it. I would flare the end of the box just 6 inches from the perpendicular, and make the sash 6 inches longer than in my former description. Three panes of glass, 14x20 inches, will make the sash the right size.

Christiansburg, Ky.

British Bee Journal.

The Visual Organs of Bees.

R. GRIMSHAW.

[Prepared and read by the author at the Quarterly Meeting of the British Bee-Keepers' Association, on July 20, 1887.]

The worker-bee has about 12,000 eyes, the drone more than twice that number, and the queen only some 10,000 (quite plenty, one would think), but, as we know, all three kinds possess the three large simple eyes—*stemmata* or *ocelli*—fixed quite in the central line of the head; those of the drone being on what we may term the *forehead* of the bee, whilst the simple eyes of the female are on the top of the head. Observation, in addition to anatomical structure, tells us that the bee has a vast range of vision, and that this must be of a telescopic nature goes without saying, when we consider that she has to discern minute specks of color at what (remembering the small comparative size of the insect) must be called immense distances; the flower on its part making these specks easiest to be seen by using as a color-bait the attractive and somewhat gaudy primaries—red, blue, and yellow, most frequently.

Each of these myriad eyes serves as a minute long or short range telescope, according to its position on the curved eye-mass, the longer distances being taken by those nearer the centre, and the shorter by the separate eyes near the margin. The bee thus gets an accurate picture of the country extending in a semi-circle before it, but in all probability appearing like a flat wall; that is, without perspective. The circle of its vision may be represented by a circumference of twelve miles, or two miles in every direction.

At this range any bright speck of color is a bid of wages, which, in the majority of instances will be paid for services rendered by the bee, the flower doing its utmost to attract its attention by using, as I said, most frequently, the glaring primary colors. Large flowers are single and solitary, whilst small ones are massed together by the plant into a head, a spike, or an umbel. These conglomerations of small flowers are again massed together by the hand of nature into sheets of bloom, of which mountain thyme, the sages and saxifrages of the Alps, or the purple heather of the moors, are familiar examples; and, so that there shall be little chance of the bee *not* seeing them, the most telling background or setting is used in nature's color-grouping—red is set in green, blue in orange, yellow in purple, and *vice versa*.

Green, orange, and purple set each other off, as do russets, grays, and browns. All for a purpose, and nothing without a purpose. Thus, so far as the bee is concerned, color is for the eye, and the eye for color. So, we may say, the telescopic eyes of the bee are intended and used for little else than as *first guides* to flowers. On approaching a flower, now come into play the guides to its contents—scented nectar—these are the organs of smell, situated, as we are told, in the antennæ; and these organs discriminate which flowers ought or ought not to be visited, for many of the color-baits prove "a vain delusion and a snare." These perfume-guides are an infallible means of detecting bee-food, for where there is not nectar there is pollen; besides we must not conclude when we see bees paying visits to flowers which are to us odorless that they are nectarless, and that consequently the bee's search is fruitless, for nectar and perfume exist in minute quantities far beyond our discernment. Fortunately, or unfortunately, for us our sense of smell is by comparison a very coarse and untrustworthy affair.

I think that before a bee alights on a flower, its compound eyes become useless, that is, superseded, and during its search in the flower-folds they are protected from friction and stickiness by the countless hairs serving as eye-buffers, the antennæ and tongue doing all the searching and gathering. Indeed, these telescopic eyes *must* be useless at such very close quarters, or they would be provided with an adaptable focusing arrangement somewhat similar to our own. They are admirable for their purpose, and when that fails some other power takes up and continues the sense chain, notably, touch and smell, these being intensified at short ranges in the same measure as the vision of the compound eye falls short. What, then, is the use of the three large simple eyes, microscopic in their action? For use in the flower-depths where the hairs of the bee become bathed in sweet liquid, or in narrow flower tubes laden *nolens volens* with pollen granules? I think not. Other senses are of more service.

I will lay before you two hypotheses as suggestions of the true place occupied by these eyes in the economy of the bee. The first of these suggests them as *homing guides.* We have dazzling tints tempting the bee through its compound eyes (flower-guides); nectar appealing to the food-guides; and as there must be a guide somewhere to *dulce domum*, where shall we look for it? Let us test the return journey by the same means as the outward trip. Dazzling tints for the telescopes there are none; landmarks for the telescopes plenty; but, alas! as soon as the neighborhood of these landmarks be reached, the next guides, the scent-discerning antennæ, totally fail, as is proved by frequent dying of bees when within a few feet of home, the hive having been removed from its old stand. Telescopic and microscopic eyes, hearing, touch, smell, all fail the bee when its home is interfered with to the extent I name. Where is the homing power? If it be *instinct*, instinct fails a few feet from home. *Instinct* will not lead it to take advantage of hedges, houses, or drains in strong winds. If reason be its homeward guide, reason fails also a few feet from home. So also do these three eyes, as the organs of vision simply.

My first proposition is, that as the simple eyes are arranged in a triangle on the head of the bee, it makes use of some superior kind of trigonometry in finding its way home, just as it uses some more intricate system of mathematics than we are acquainted with in its cell-construction. The three simple eyes are not arranged in an obtuse triangle without the angle *principle* being brought into play as a factor in its vision, for it is in accordance with the triangular principle that the two side eyes have an outward aspect and inclination, whilst the lower and front eye looks forward.

From our limited knowledge let us reason from what we *do* with triangles in optics, to what the bee *may do.* By a system of triangles, aided by telescopes (like the bee) we ascertain the difference of remote objects, the height of mountains, the distance to the earth's centre, its diameter and circumference, the form, size, and distance from us of the sun, moon and stars. The vision through the bee's three eyes must perforce give it the bases and apex of an inverted triangle, whatever use it puts the knowledge to, thus obtained. This local triangular vision in connection with distant telescopic vision is certainly an actual occurrence, and is in singular similitude to our own triangulations, whatever may be thought of such a coincidence. Now it is a well-known fact that upon a bee's first trip from home it circles round it a few times, then approaching and receding (without turning round) from the entrance in an almost straight line, as if "taking bearings," to use the stereotyped phrase. Yes, but taking bearings on what basis? Let the mariner take bearings without his angles, and his instruments as correct bases, and note the disastrous result. On the other hand, let the bee with its telescopic range note prominent objects in its range of vision, and at the same time note with its short-focussed three simple eyes the position of near objects with regard to distant ones, and its way home is assured, so long as the distant landmarks are kept in view. It can return to its own garden and hive to a certainty. Remove the hive, and all its local triangular calculations are disarranged. It is lost. The unerring aim of the insect for the old spot, whether its home be there or not, goes a long way to support the suggestion that its homing guide within well-known landmarks is by calculation almost entirely mathematical, and that *without* this triangular calculation all its other guides—sight, smell, hearing, and touch—fall with the bee to the ground.

My second hypothesis as to the use of the ocelli is not quite so vague in its character as the foregoing. We find the worker-bee in the deep darkness of its cell carrying out with its jaws the unshapely little heaps of wax into a series of triangles of almost mathematical exactness. Well, darkness is only a *comparative* term—absolute darkness we can scarcely obtain. The skull-like frame-work in which these eyes are set is so waved or convoluted that the two upper eyes are directed outwards, and the lower one forward, this triangular outlook being further secured by an arrangement of hairs which prevent the eyes seeing in any other direction. We have next the wedge-shaped head of the bee, apex downwards, and from the centre of the cell-base we have a series of wedge-shaped results in wax, one triangle being from the middle of two walls to the centre (this gives us the cell-floor), and another from the corners of the cell-walls to the centre (thus we get the wall).

As the bee works upon the plastic wax it supports itself by its six legs on six rudimentary cell-walls, and gnaws away the superabundant wax from the circular to the angular form, its guide in this operation being probably, first, the immoveable, staring simple eyes, fixing the triangles, next the highly sensitive tactile antennæ, and, finally, for soothing down and chiselling purposes we have the wedge-like head. As for the existence of stemmata in the queen, which does not build, a moment's reflection will show you that as the worker is an imperfect queen, or the queen an imperfect worker (I don't care which), this point is disposed of. With regard to the drone, a little physiological reasoning will discover the necessity for their existence. I put these two theories before you more as suggestions for interesting speculation—at least so they have proved to me—than as distinct statements of proven fact, for such I fear they will never be.

The discussion of the topic presented by Mr. Grimshaw was as follows:

Mr. Garratt did not think he could add any remarks of interest to the essay which had been so ably prepared, but would like to ask one or two questions. He did not feel quite sure whether it was intended that the meeting should regard the statements Mr. Grimshaw had made as ascertained facts, or as speculations. It seemed to him that they were speculations, and he thought towards the conclusion of the essay just read, Mr. Grimshaw admitted that. He was startled at the outset to hear that bees had so large a number of eyes. Many writers on bees had fixed the number of separate eyes at 800 in each compound eye, and now it was said that instead of hundreds there were many thousands. He would like further light thrown on this matter. It seemed quite reasonable that if bees had as many eyes as stated, they must serve different purposes, or nature would not have been so prodigal in designing such an organ of vision. Also with regard to the organs of smell being contained in the antennæ, he thought that statement was purely speculative. Certainly more light had been thrown on the subject by Mr. Cheshire in recent times than before, but Mr. Grimshaw had gone further than Mr. Cheshire. It occurred to him that that subject, like many others of a scientific character in relation to bees, might be taken into consideration by the association, with the object of promoting further research and discovery. One of the aims of the institution should be to encourage experiment for the purpose of gaining increased scientific information. Many of the points touched on by Mr.Grimshaw were well worthy of further elucidation. The knowledge of the habits, instinct, and mode of working of bees was in its infancy, and he recommended that the association should organize a system of close and methodical observation in the direction suggested.

Mr. Webster thought Mr. Grimshaw's figures respecting the number of facets in a bee's eye far more correct than Mr. Garratt's computation of 800. He had counted 100 facets in a bee's eye which occupied no more space than a pin's point, but he had no instrument fine enough to compute the number of facets in a single eye. With regard to bees building their cells hexagonally, he thought the bees built the cells round in shape, and that by pressure they became hexagonal. He did not believe the triangular eyes had any influence on the building of hexagonal cells. As to bees taking points by triangles in the same way as mariners, he doubted the assertion, because bees frequently made mistakes by entering the wrong hives. They became mixed to a considerable extent. Where two species of bees were kept like the black and Italian, dozens of the latter might often be found in the black bees' hives. On the other hand, Italians would not permit strangers in their hives.

The chairman would like to know what color bees had a preference for. In his garden there were large patches of yellow flowers, which were generally supposed to be bee-flowers, but the bees did not appear to work on them in nearly such large force as on the mignonette.

Mr. Grimshaw said that in his remarks about color, he had excluded from consideration clover, heather, or any flowers which attract bees by their odor. He thought it could not be questioned that the eye was intended to distinguish colors. Sir John Lubbock's experiments showed that they preferred flowers with a blue tint. He believed the object of bright colors was to tempt the bee to visit such plants, and when the bee arrived within a certain range it knew whether or not anything could be gained by an inspection of the flowers. Its telescopic vision enabled it to see these colors at a great distance. There was no doubt that both bumble-bees and honey-bees visited flowers without finding nectar therein; and it must be taken for granted that color was the attraction in the first instance. With regard to Mr. Webster's remarks about cells, he thought if an examination of the outer edges of the comb were to be made it would be found in many instances that the cells were quite angular, where there could be no pressure. With regard to the hexagonal shape of the facets of the separate eyes of the compound eye-mass, the outer walls were not hexagonal but circular; therefore it might be that the chitine in a soft condition was pressed into hexagonal form, but in its outer edges it was free to assume any shape. In reply to Mr. Garratt, he could say that his (the speaker's) figures were quite within the mark when estimating the number of facets at 12,000 for a worker, upwards of 24,000 for a drone, and about 10,000 for a queen. The queen did not require so many eyes as a worker, and the drone, needing a very extended vision, had double the number of a worker. A drone flew only in fine weather, and at a different altitude to other bees, and the object of its search was so rare that extraordinary powers of vision were necessary.

Mr. Meggy would like to know how far the statement was to be considered reliable, that the bee had a sensation of feeling in its antennæ; and he would also like to hear a few words from Mr. Grimshaw in reply to Mr. Webster's remarks as to the failure of bees to find their right homes, probably owing to a want of sight. Mr. Cheshire's observations tended towards the belief that the antennæ were the seat of feeling. Mr. Grimshaw could perhaps say whether the Germans agreed with Mr. Cheshire's views. Possibly Ligurian bees went to other hives for the purpose of robbing, and not because they had lost their way, as Mr. Webster suggested. In an early volume of the first edition of the *Popular Educator*, published about 25 years ago, a statement was made on the question of Euclid as to the exactitude of the bees working in the hexagonal. The writer tried to show that the bees were not quite exact in their mathematics, but his arguments were afterwards vigorously assailed, and the bee's measurement found correct.

Mr. Grimshaw said with regard to bees not always coming back direct to their own hives, he thought one or two exceptions must not be taken as upsetting the rule. There was a saying that if a strange bee went to a hive with its honey-sac full, it was received with "open arms." With regard to the smell organs being situated in the antennæ, experiments had been made by clipping off the antennæ of insects for the purpose of seeing whether or not the latter would find nectar. The result of such experiments was that drone, queen, worker-bee, ants, and other insects possessing antennæ,and which feed on scented substances, went wandering about in a very aimless manner after being deprived of their antennæ. In addition to that there were certain depressions on the antennæ provided with nerves, which the highest authorities argued could be put to no other purpose than that of smelling.

Mr. Webster did not know whether it was that the bees went visiting one another, or that by mistake they entered the wrong hives and were accepted for the time being because they brought supplies with them; but an examination of his colonies of black bees, night or morning, would often show more than a hundred Ligurian intruders.

Mr. Grimshaw said Mr. Webster's remarks struck at the root of one of the bee-keeper's articles of faith. They all knew that sentries were placed at the entrance to a hive day and night, which were able to detect strangers by the smell. All bee-keepers must have witnessed the conflicts which took place from time to time on the alighting-board between strange visitors and the inmates of the hive.

Mr. Daintree endorsed Mr. Grimshaw's views. He frequently searched his hives, but seldom or never found an Italian bee in the wrong hive. He thought bees had a keen sense of hearing. A party of hand-bell ringers came into this district twelve months ago, and immediately they began to ring their bells, although at a long distance off, the bees flocked out of all the hives in large numbers.

Mr. Webster was of the opinion that bees going to a hive to rob were stopped by the sentries not so much by a sense of smell as by the particular action of the strangers in approaching the hive. He believed that the sentries could tell the difference between a bee which had lost its way and a bee which came for the purpose of robbing. A robber bee going to a hive made a peculiar kind of hum, which was totally distinct from a bee bringing in honey.

Mr. Grimshaw said that in cases where hives had been moved in the day-time, the bees belonging thereto would fly about the old stands, and frequently die from inability to find their homes instead of entering other hives. With regard to the bees' eyes, there was no doubt they were so placed for the purpose of giving triangular vision. They represented the instruments which the civil engineer used in his measurements, and combined a triangular system of optics with telescopic arrangements.

Mr. Hooker thought Mr. Grimshaw's arguments very feasible, and suggested that Mr. Webster should propound an alternative theory if he did not believe them.

Mr. Webster believed that the two sets of eyes were for seeing far and short distances, but he did not think that the bees acted on the principles of trigonometry.

Mr. Meggy thought that the ocelli were placed so as to give the triangulation, but that the compound eyes gave the short sight for use in the flower especially. From observations made in his own apiary, he believed it was very rare for bees to make a mistake and visit the wrong hive.

Mr. Grimshaw believed the bee saw objects near to it by means of the short telescopes. The telescopes varied in length, the compound eye-mass being rounded. The facets near the centre had a longer range than those at the outer edges. He did not think the bee used the three simple eyes for ordinary vision at all,because the other eyes answered the purpose admirably.

In answer to Mr. Meggy, Mr. Grimshaw said that the eye was shaped like an orange, and that if a section were taken, it would be found that some of the eyes had short tubes and others long tubes. He believed that bees saw short distances with the short tubes, and long distances with the long tubes, in the same compound eye-mass.

The Chairman moved, and Mr. Garratt seconded, a vote of thanks to Mr. Grimshaw for his valuable and interesting essay.

Mr. Grimshaw briefly thanked the audience, and said he had been amply repaid for his trouble in preparing the manuscript, by listening to the very interesting conversation which had ensued thereon.

Bee-Keepers' Magazine.

High Prices for Honey—Kissing Bees.

MRS. M. L. THOMAS.

I long ago adopted a rule not to reply to press notices, however erroneous they may be, for I have observed that there is a certain class of men wholly incapable of doing anything better, who can always contradict and object to whatever others have thought or said or done, and discussion with such is time worse than wasted. But I am going to depart from this rule, that I may thank you for your generous endorsement of my truthfulness and honesty of purpose, in your review of an article in the AMERICAN BEE JOURNAL, which seems indirectly to take exception to a speech made by me on "Women in Bee-Keeping," before the New York State Bee-Keepers' Convention, at Albany, N. Y.

It would not be strange if in the rapid utterances of an extemporaneous speech, or in the rendering of it by reporters, something might be said, or reported, not intended by the speaker; but in looking over those passages quoted by you from the Chicago BEE JOURNAL, I am happy to say that, while parts of it are not correct strictly, I find nothing that I am not willing to admit for the sake of the argument, or let it pass by if it suits the writer to have it so. Albeit, I do not think that a sneer or sarcasm is ever an honest argument, or worthy the attention of a right-minded person, nor is it in this case even a denial, except by implication, without reason.

The very first sentence: "In a woman convention, etc.," is entirely without foundation in fact. The speech in question was delivered before a convention composed entirely of men, or with not more than one other lady present, and if I remember correctly, the first sentence uttered made note of the fact. The men present were all thinking, experienced bee-men, not mere learners, and not a word of dissent was expressed.

The theme was one selected by the committee, and the duty, as well as the pleasure, of the speaker was to present it in a way calculated to interest women in the delightful pursuit. This I did by giving facts in my own experience, and of others well known to me. I believe I stated nothing that was not strictly true, and I do now reiterate them, adding what the reporters failed to give, that my convictions are that bee-keeping is still in its infancy; that its future honey production will be greatly in advance of anything yet known; that what I claim to have done is not a large claim,but is very little compared with what might be done, even in the present time, by enlightened skill and enterprise.

A number of years ago a bee-keeper in the basswood region of Cherry Valley, N. Y. (I forget his name), claimed to have obtained from a single colony in one year, a surplus of 1,100 pounds. A howl of ignorant surprise greeted his statement, but he was a man who understood himself and his subject, and he gave blow for blow, and *being a man* I never heard that he took back his words.

The reference made to a lady member of the Philadelphia Bee-Keepers' Association, who took a first prize at the Pennsylvania Agricultural Fair the third year of her experience, and who sold part of her honey on the Fair Ground for 50 cents per pound, and other points in her experience, are facts on record. They came to me in my official capacity as judge of industrial insects, a post I have had the honor to fill for many years in Pennsylvania. They were stated in the presence of the President of the Philadelphia Association, and at least one other member, and their truthfulness is entirely beyond dispute. If time had permitted, or if my illustration had not been confined to woman's work, I could have told many more remarkable facts of other members of that association, one of whom, in his enthusiasm, spent several years on the coast of Africa in the investigation of scientific apiculture.

The point on which the gentleman seeks to be specially witty and sarcastic, is that which he terms "Kissing bees!" His idea of a caress or a salute is very different from mine. I was trying to argue that bee-keeping, to become popular, must be raised to the place of a most ennobling science. I spoke of the marvelous ingenuity and mechanical skill of the bee, of the unselfish devotion to the queen mother that will suffer misfortune, starvation, death, that she may live. I claimed that they have memory, that they recognized kindness and resent injury.

For many years I used the Langstroth plan of subduing my bees by sprinkling with sugar water on opening the hive, and I said I often noticed the bees alight on my hand as if to caress or kiss it, thus expressing their pleasure at my coming. If this expression is too poetic to suit the gentleman, of course he is quite at liberty to use another better suited to his own taste, but I like it. I think that it is a good one to express the thought. I wish I might claim it as original, but candor compels me to admit that it is not. Langstroth says his bees will follow the hand that has held the queen as if to caress it, and that when he opened the hive to sprinkle the sweets upon them they showed unmistakable pleasure. I quote from memory, without claiming to use his exact words.

It is enough for me that I have, in my close and friendly relations with my little friends, observed these evidences of high intelligence which places them in the front ranks of the insect creation. If the editor of the AMERICAN BEE JOURNAL could see that it would be a just act to lay this explanation before his readers, he would honor himself.

[Yes, indeed; the editor of the AMERICAN BEE JOURNAL lays this entire letter of the lady in question before his readers with *pleasure*.

It seems that some reporter for the daily press had made up a case to suit himself, and we saw only the phase of it as presented by him. He said it was in "a woman's convention," that a "Mrs. Thomas" made the speech, etc., but did not say where it was held, or give any clue to the identity of the speaker, or for what purpose the convention was held.

It seems that the time Mrs. Thomas had in view was the "long ago," when imported queens sold readily from $30 to $50 each, and honey in 8 and 10 pound boxes sold at 50 cents per pound. The reporter located this by the expression "*two years ago.*" That makes quite a difference.

The "rosy account," as it was being copied in the daily papers, was deceptive, and hence our remarks.

We are glad to have Mrs. Thomas give the "true version" of that speech, even though we cannot endorse all she claims—still she has a right to her own views of the matter.

As to the "kissing," the lady remarks that the editor's "idea of a caress or a salute is very different from [her's] mine!" We certainly referred to the old-fashioned kind, and know of no other kind worth mentioning! But we are *too bashful* to discuss that loving salutation with a lady, and will pass it, with the remark that she then used a very inappropriate and misleading word to express her ideas.—ED.]

For the American Bee Journal.

Names for Honey out of the Comb.

HENRY K. STALEY.

As there seems to be "no let up" concerning the naming of honey taken out of the comb, and the doing away with the word "extracted," I would suggest any one of the following words, which, concerning honey taken out of the comb, means about the same as that of the word "extracted," and the "extract of honey" cannot make its appearance from any of them. I would suggest the following:

EXTRICATED HONEY.—This means honey sent out of the comb, which in truth it is by the centrifugal force of the extractor, and it also fully conveys the idea. This word is a good one to stand in place of "extracted," and do away with that mistake, which Mr. Demaree says "would put millions of money into the pockets of the honey-producers of this country;" and I fully agree with him. It has only ten letters, while "extracted" has nine, and this is also an important feature concerning it. The type that is already set up, need be little changed, because all that is needed is in addition, the small or capital letter I, as the case may require. If the type is already set up for the word "extracted," take out a few quads, put in the letter I after R, and turn *ac* around to *ca*. Thus by the turning around of two letters, and the addition of one, the hallucination, in respect to "extract of honey," is done away with, and bee-keepers may still have their own desired labels, with but a slight alteration on the face of the label. This is a very important affair, for when once an apiarist adopts a certain label that he likes, it may be hard for him to find another to suit his taste.

EXTRUDED HONEY.—This means honey expelled from the comb, which is also made true by the use of the extractor.

EMITTED OR EVOLVED HONEY.—Emitted or evolved both express the truth concerning honey thrown out of the comb. Of course there are more meanings to these words, but I am using the meanings of them with respect to honey taken out of the comb. I am of the opinion that any one of these words may be used with success, and the phrase or title, "extract of honey"—which has proved so damaging concerning the vending of honey taken out of the comb, and still portends to continue so—be done away with.

Mr. Editor, if any of these words are suitable, give us your idea concerning them; if not, condemn them, so that no more valuable space may be wasted.

But really it is out of the way for any one in this enlightened epoch of time to call "extracted honey," "extract of honey," and therefore refuse to eat one of nature's greatest luxuries—"extracted honey." True is the apothegm, "Be slow and be sure," and so is the other, "A stitch in time saves nine."

Pleasant Ridge, ♀ O.

[The words extricated, extruded, expelled, emitted and evolved may all be properly used to indicate "honey out of the comb," but not one of them are as euphonious as "extracted" for its name. We do not want a change "just for variety"—it must be an improvement, or it loses the greatest plea for its adoption.—ED.]

Convention Notices.

☞ The next meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at O. J. Cumming's, in Guilford, 4 miles northeast of Rockford, Ills., on Thursday, Aug. 18, 1887. D. A. FULLER, *Sec.*

☞ The Cedar Valley Bee-Keepers' Association will be held at Waterloo, Iowa, on Sept. 6 and 7, 1887. The Cedar Valley Bee-Keepers' Produce and Supply Union will meet with the above Association. This meeting will be made both pleasant and profitable to bee-keepers. All interested in apiculture are cordially invited to attend. Do not be discouraged with this year's crop, but come and have a good time. H. E. HUBBARD, *Sec.*

Local Convention Directory.

1887. *Time and place of Meeting.*

Aug. 18.—N. W. Ills. & S. W. Wis., at Guilford, Ill.
D. A. Fuller, Sec., Cherry Valley, Ill.

Sept. 6, 7.—Cedar Valley, at Waterloo, Iowa.
H. E. Hubbard, Sec., La Porte City, Iowa.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Large Yield of Honey.—J. Van Deusen & Sons, Sprout Brook,⌒ N. Y., on Aug. 3, 1887, write:

We have a large yield of the nicest white honey ever gathered, and the bees have made a nice start on buckwheat, which is very promising.

Terrible Drouth.—F. L. Merrick, Waldron,○→ Ills., on Aug. 8, 1887, says:

Bees are as still as in winter. We have had very little surplus, with poor prospects for fall flowers at present. There is scarcely a flower or clover blossom in this section of the country. Cisterns are all dry, and wells are drying up fast. Pastures are brown, and as dry as a powder house.

Bee-Work has Ceased.—E. Jarvis, Fair Grove,○→ Mich., on Aug. 6, 1887, says:

Work with the bees ceased gradually in this vicinity from the middle of July until now. It is extremely dry here. Boneset and buckwheat yield scarcely anything. Bumblebees die on the boneset. Nothing but robber bees carry honey upstairs now.

Oval-Leaved Privet.—Rev. A. Abbott. of Ryde, Isle of Wight, England, writes on July 25, 1887:

I send you a specimen of a tree called here the "Privet" tree. I think it is found in some parts of America, where it generally, I hear, is kept so closely trimmed that it is seldom seen in blossom. Here in the Isle of Wight it grows and blossoms, and is full of honey-bees all day. It blossoms about July 1, and is still in flower, but the petals are fast falling off. It is not what some call "privet" in Nebraska—a bush about 3 feet high with red berries. This I send you is the *Ligustrum ovalifolium.* I think it would be very valuable for honey in America, and so I direct attention to it, and you can doubtless tell if it is used for the bees in that country. I came from St. Joseph, Mo., to Ryde, a town in the Isle of Wight, June last, on account of my own health and that of my family, and I expect to live here permanently with my daughter.

[The specimen sent by the Rev. A. Abbott, is of the genus *Ligustrum*, and there are 21 varieties, of which these are the common names: barren, box-leaved, Chinese, Chinese dwarf, Chinese wax, common, Egyptian, fortune, gold blotched, hairy, Japanese, mock, oval-leaved, pipe, shining-leaved, spike-flowered, Syrian, variegated-leaved, white-berried and yellow-berried. The specimen sent is *Ligustrum ovalifolium*, and its common name is "oval-leaved privet."

The Japanese privet (*Japonicum*) is found in the Southern States, and blooms in May and June; but although its honey-producing qualities are good, it is not enumerated among the first-class honey-producers.

The "privet" is found here in the North and West, but is not considered worth mentioning as a honey-producer.—Ed.]

No Swarms—Honey-Dew.—J. H. Blanchard, Boise City,♀ Idaho, on July 30, 1887, writes:

Not a single colony of my bees has swarmed this year. Frosty nights in May and June killed all the fruit-bloom, and feeding had to be resorted to. White clover is nearly gone, and about all they have to gather at present is "honey-dew," peppermint, and buckwheat. The surplus crop outside of "honey-dew" this fall, will be very slim.

One Pound Per Colony, etc.—Jacob Copeland, Allendale,⌒ Ills., on Aug. 8, 1887, writes:

If "Misery loves company," I ought to be happy—but I'm not. From 55 colonies of bees, spring count, I have obtained 7 good swarms and 55 pounds of honey stored in empty combs in one-pound sections, that I had left from last fall. According to the assessor's report, there are 550 colonies in this township, divided perhaps among more than one hundred persons, and I have not heard of any one that has done any better than I, but I know of several that have not done so well.

Small Average Per Colony.—H. A. Paxson, Spring Brook,←○ N. Y., on Aug. 2, 1887, writes:

As far as I am able to learn, the bee-keeping in this locality has been nearly a failure this year. My apiary will hardly average 6 pounds of comb honey to the colony, spring count, and the surrounding apiaries will average about the same. About three-fourths of the bees swarmed, but the honey-flow was too short for them. Many colonies have not as yet more than half filled their brood-chambers. We have had comparatively few second swarms. There will probably be taken about 8 pounds of extracted from each colony, by those who produce that kind of honey; but very few of those who do not keep more than 10 or 12 colonies, use the extractor.

Sugar Stores Uncapped.—Julius O. Jaehne, Western Springs,♂ Ills., on Aug. 3, 1887, writes:

For some time I have been feeding my bees granulated sugar, dissolved. They have stored considerable of it, but not a cell is capped. What is the cause?

[Without knowing more of the conditions, I cannot tell why your bees fail to seal over the stored syrup. If you made it very thin, and the weather is cool or wet, or both, that would account for the facts you state. I have received so many questions of late, relative to feeding bees, that I will at once prepare an article upon the subject—one that I have had much experience with.—James Heddon.]

Bees still Swarming.—L. Reed, Orono,⊙ Mich., on Aug. 9, 1887, writes:

My bees are swarming yet. I wintered 54 colonies, all coming through in good condition. I sold 12, and commenced the season with 42 colonies. The spring opened early, and I obtained some surplus from hard maple, the first I ever had from that source. They commenced swarming on June 7. I had from 3 to 7 swarms per day. I hived all first swarms, cut out queen-cells, and put back all second swarms. About July 1, the first swarms commenced sending out swarms. I took the old queen away from them, or killed her, and put them back; then when the young queens hatched out, they came again as I knew they would. Then it was cut out cells and put them back. They have superseded about two-thirds of the old queens in my apiary, which is something uncommon with me. I had one colony that cast a swarm on June 7, and another on June 17; I put them back on July 30, and they cast a prime swarm, the same as a first swarm. That was the second case of the kind I ever had. I have had 7 swarms in the last three days; I have put back over 50 swarms, and still they keep it up. I had a large swarm this morning. I will get about one-third of a crop of honey. It is very dry here; we have had no rain since July 4. Bees are bringing in some honey, as dry as it is. I shall have to feed all young colonies, unless it rains soon to bring on the fall crop.

Cinnamon-Oil for Bee-Stings.—Dayton E. Barker, St. Joseph,⊸ Mo., on Aug. 9, 1887, writes:

I have tried everything for bee-stings, and I found that pure cinnamon-oil is the best thing I have ever tried. Two drops of cinnamon-oil will keep it from swelling. Perhaps all bee-men have not tried this. On page 491, Mr. Denison Hoxie suggests kerosene, but I think he will find cinnamon-oil better than kerosene oil.

Predicts Great Winter Mortality.—Dr. S. W. Morrison, Oxford,⟜ Pa., on Aug. 9, 1887, says:

There is, fairly reckoning, no surplus honey, as for winter stores as much must be fed back as has been taken. I have correspondents all over the United States, and have the same report everywhere. Unless proper attention is given to this, I predict that the winter mortality will be unprecedented.

Quoting the Price of Sugar.—J. W. Wilcox, Scales Mound,⊸ Ills., on Aug. 8, 1887, says:

The honey crop being a failure in many places, and bee-keepers being obliged to feed sugar syrup to keep their bees from starving the coming winter, would it not be well for you to quote the price of sugar by the barrel, in the AMERICAN BEE JOURNAL. I mean Chicago prices, and for how much you could supply it to your subscribers. If you can aid us in any way this unfortunate year, bee-keepers will, I think, be thankful for the favor.

[Sugar varies in price, and quotations can be seen in all the daily papers. The margins are very close, and every one can buy just as well in their nearest town as in large cities, by adding the freight charges. To-day pure sugar is worth from 6 to 6½ cents, according to quality.—Ed.]

Motherwort.—W. F. Stewart, Greenfield,♀ Iowa, on Aug. 6, 1887, says:

I send you a plant found growing in my orchard. I would like to know what it is, and if it will pay to cultivate for honey. It has been in blossom for a month, and covered with bees all the time. I cannot see that they get any pollen from it. It will have seed ripe at the bottom of the stalk, and blossoms on the top.

[It is motherwort, an excellent honey-producer.—Ed.]

Light Crop in Kentucky.—E. Drane & Son, Eminence,♂ Ky., on Aug. 7, 1887, write:

We have a very light crop of honey this year. We had reasonably plenty of white clover bloom, but the weather was too cool. We had 40 acres of Alsike clover that was very fine, but the weather conditions were such that it yielded but little honey. We sowed 200 acres to Alsike and other grasses on wheat last spring; 60 acres that was sown late, has been killed so badly by dry weather that we will have to plow the land and sow again. We got 600 or 700 pounds of very nice comb honey that we are selling at 25 cents per pound.

Must Feed Bees for Winter.—Geo. H. McGee, Point Marblehead,♂ O., on Aug. 3, 1887, says:

The honey crop in this county is an entire failure. Nothing was gathered from clover, very little from basswood, and nothing is expected from fall flowers. The bees will have to be fed to keep them from starving the coming winter. I commenced the season with 30 colonies, and have had no swarms.

Centrifugal or Thrown Honey.—J. Tomlinson, Allegan,♀ Mich., says:

Let me add my mite to the discussion of the change of name of extracted honey. Why not "let well enough alone?" The word extracted expresses the exact truth. But if we must have another name, I would suggest "centrifugal honey;" or if that is too long a word, why not call it "thrown honey," which is also the exact truth.

[It is not desirable to make a *change* unless a great improvement is at the same time obtained. Extracted is far superior as a name to either of those mentioned by Mr. Tomlinson—though either of them would express the truth.—Ed.]

The Honey Crop in Virginia.—H. P. Deahl, Berryville,♂ Va., on Aug. 6, 1887, says:

The honey crop is a complete failure this season. Last season I had 11,000 pounds of comb honey in one-pound sections; this season I have taken about 3 000 pounds from 220 colonies. I have increased my apiary to 250 colonies. I hope that next season my apiary will bring me 15,000 or 20,000 pounds of comb honey. I have also disposed of quite a number of fine Albino and Italian queens, this season.

Buckwheat Yielding Well, etc.—Charlie W. Bradish, Glendale,♂ N. Y., on Aug. 5, 1887, writes:

At the beginning of the honey harvest this season I had 100 colonies in the best condition. They went to work in the sections with a rush, and had a set nearly completed when the drouth commenced. They did not gather anything to speak of after that until linden bloomed, when they finished up the sections which they had left unfinished; and that ended the honey crop for 1887, being about 25 pounds per colony, spring count, with an increase of 41 colonies. What honey I did get was very nice. The bees are now at work on buckwheat, and it is yielding honey very well. If it continues a few days more they will have enough for winter. Most of the bee-keepers in this county report not over one-fourth of a crop.

Poorest Season in 15 Years.—R. A. Calvin, Hartford,♀ Mich., on Aug. 4, 1887, says:

I packed 43 colonies of bees in clover chaff last fall, in low sheds. I lost 9 colonies, leaving me 34 this spring, which I increased to 60 colonies by natural swarming; besides, I returned 10 second swarms, and have taken 1,000 pounds of honey, against 3,000 pounds last year from 28 colonies. This is the poorest season that I have experienced for 15 years, on account of the continued drouth.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—We quote: In 1-lb. sections, 15@18c The color makes the difference in price.

BEESWAX,—22@24c. R. A. BURNETT,
Aug. 12. 161 South Water St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 15c.; dark 2-lbs., 11@12c. choice white 1-lbs., 18c.; dark 1-lbs., 12@14c. Calif. white 2-lbs., 14c.; extra C 2-lbs., 12@13c.; C 2-lbs., 10@11c. Extracted, new crop, choice white, 8@10c.; dark, 5@7c; Calif. white, 8c.; amber, 6@7c. Prices firm.

BEESWAX.—20 to 22c.
Aug. 10. HAMBLIN & BEARSS, 514 Walnut St.

CLEVELAND.

HONEY.—Choice new white 1-lb. sections sell as fast as they arrive, at 16c.; 2-lbs., 14 to 15c.; second grade, 13@14c. Extracted, 4@6c. Demand good.

BEESWAX.—25c.
Aug. 9. A. C. KENDEL, 115 Ontario St.

DETROIT.

HONEY.—Some new white comb sold at 12½ cts., but prospects for better prices are good.

BEESWAX.—23c.
July 20. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 5@5½c.; amber colored and candied, 4@4¾c.—White to extra white comb, 12@14c.; amber, 8@11c. Demand improving and market firm.

BEESWAX.—17@20c.
Aug. 6. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@ ½c.; in cans, 5½ to 6c.—Market very firm at above prices.

BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4⅝@5c.; amber and candied, 4¼@4⅜c. Receipts light; poor crop.

BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice new 1-lbs., 14@15c.; old 1-lbs., 12@12½c.; 2-lbs. not in demand, 10@11c. White extracted in kegs and barrels, 7@7½c.; in small tin cans, 7½@8c.; dark in kegs and barrels, 6@6½c.; in small tin cans, 6½c. Market ready for new crop.

BEESWAX.—25c.
July 21. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Best comb brings 11@14c. Demand improving.

BEESWAX.—Good demand,—20@22c. per lb. for good to choice yellow.
Jun. 11. C. F. MUTH & SON, Freeman & Central Av.

BOSTON.

HONEY.—1-lb. packages of white clover honey at 13@15c.; 2-pounds at 11@13c. Extracted, 5@7c. Sales very light. Fancy white extracted in good demand, but supply limited.

BEESWAX.—26 cts. per lb.
July 11. BLAKE & RIPLEY, 57 Chatham Street.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We nave now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

In the Interest of the bee-keeping public as well as in order to increase business, we wish to make it generally known that we deal in **Honey and Beeswax** especially.

Our personal acquaintance with the trade all through this country, and our connections in foreign markets, enable us to handle any quantity of comb and extracted honey and wax most advantageously.

It is our aim not only to supply the demand, but also to create a demand, especially in those parts of the country which heretofore have been neglected, or overlooked. Honey at present prices ought to be used as a regular food product by all classes. It is to the interest of every thoughtful apiarist to increase the consumption, in order to equalize the rapidly increasing production, and thus uphold prices—but it is also absolutely necessary to offer to consumers tne **Pure** and **Perfect** article only, in order to maintain their confidence.

We trust that with the co-operation of the bee-keepers we can attain our object. We solicit correspondence and consignments. On the latter, advancements will be made.

Prompt returns guaranteed at head-quarters, 122 Water Street, near Wall, New York.

F. G. STROHMEYER & CO.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

☞ The Cortland Union Bee-Keepers' Association will hold their annual basket picnic at Blodgett's trout-pond in Cortland, N. Y., on August 23, 1887. All interested in bee-culture, with their families, are cordially invited to attend.

D. F. SHATTUCK, Sec., Homer, N. Y.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Advertisements.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

WANTED,

ALL the Bee-Men who see this advertisement to send us hundred pounds of 1-lb. and 2-lb. sections of White Comb Honey, as sample, by Express, stating quantity and price for same. Cash, delivered in Kansas City. **CLEMONS, CLOON & CO.,**
Cor. 4th & Walnut, Sts., KANSAS CITY, MO.
30A4t

PURE Bred Poultry!— BROWN LEGHORNS and WYANDOTS. Cockerels, $1.50 to $5.00 each. Eggs in season.
Address, **A. P. LAWRENCE,**
33A1t HICKORY CORNERS, MICH.

I AM re-queening my Yard, and offer one and two year old Tested Italian Queens at 65 cts.; Hybrids at 35 cents each. Warranted good stock and vigorous Queens. About 100 Queens.
Address, T. H. KLOER,
33A1t Terre Haute, Vigo Co., Ind.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**
F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.
33A26t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent by mail for 10 cents.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE
For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,
H. A. COOK, Eureka Springs, Ark.

A Good Market for
COMB HONEY.

THE Highest Market Price will be paid for COMB HONEY. Before disposing of your Crop write to
H. L. NICOL & CO.,
KANSAS CITY, MO.,
Proprietors of "Red Cross" Brand Honey.
33A4t

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

BY RETURN MAIL!

SIX Warranted Italian Queens.................	$5 00
Fourteen Warranted Italian Queens..........	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

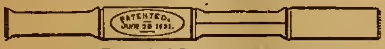
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.

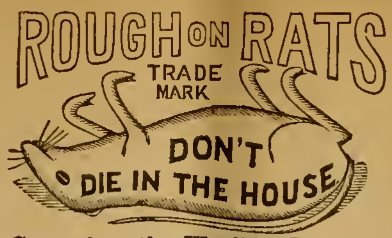

PATENTED JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.



Gone where the Woodbine Twineth.

Rats are smart, but "ROUGH ON RATS" beats them. Clears out Rats, Mice, Roaches, Water Bugs, Flies, Beetles, Moths, Ants, Mosquitoes, Bed-bugs, Insects, Potato Bugs, Sparrows, Skunks. Weasel, Gophers, Chipmunks, Moles, Musk Rats, Jack Rabbits. Squirrels. 15c. & 25c.

HEN LICE.

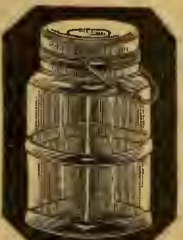
"ROUGH ON RATS" is a complete preventive and destroyer of Hen Lice. Mix a 25c. box of "ROUGH ON RATS" to a pail of whitewash, keep it well stirred up while applying. Whitewash the whole interior of the Hennery; inside and outside of the nests. The cure is radical and complete.

POTATO BUGS

For Potato Bugs, Insects on Vines, Shrubs, Trees, 1 pound or half the contents of a $1.00 box of "ROUGH ON RATS" (Agricultural Size) to be *thoroughly* mixed with one to two barrels of plaster, or what is better air slacked lime. Much depends upon thorough mixing, so as to completely distribute the poison. Sprinkle it on plants, trees or shrubs when damp or wet, and is quite effective when mixed with lime, dusted on without moisture. While in its concentrated state it is the most active and strongest of all Bug Poisons; when mixed as above is comparatively harmless to animals or persons, in any quantity they would take. If preferred to use in liquid form, a tablespoonful of the full strength "ROUGH ON RATS" Powder, well shaken, in a keg of water and applied with a sprinkling pot, spray syringe or whisk broom, will be found very effective. Keep it well stirred up while using. Sold by all Druggists and Storekeepers. 15c., 25c. & $1.
E. S. WELLS, Chemist, Jersey City, N. J.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equalled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	**$1.60**
" 2 pounds " "	.....	**2.00**
" 3 " " "	.....	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen...	$0.80
6 Queens.......................................	4.50
12 Queens.....................................	8.00

Address, **WM. W. CARY,**
29Atf Colerain, Franklin Co., Mass.

ITALIAN Queens by return mail, Tested 90c.; Untested. 50c., or $5.50 per dozen.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin, Hartford, N.Y.
6W(3tm)40t

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS received many kind letters in regard to the excellency of his little book, **"The Production of Comb Honey;"** and it is with pleasure that he publishes the following "sample:"

ST. LOUIS, MO., April 16, 1887.

FRIEND HUTCHINSON.—Your little book has been forwarded to me from home, with the statement that "It has been read by every member of the family;" and, judging from the numerous underscored lines and bracketed passages, it was thoroughly appreciated.

I have been experimenting somewhat in the same direction, and while my experiments were by no means so thorough and exhaustive as yours, they make me an earnest supporter of the beliefs and practices laid down in your book, which I value above price, and can endorse every word of it. Sincerely yours, DWIGHT FURNESS.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
31Atf

PRICES REDUCED!

ONE Warranted Queen...............		$ 75
Six " Queens		4.00
Two dozen " "		15.00
Select Tested Queen....................		1.50

☞ Orders filled by return mail.

Address, **J. T. WILSON,**
31Dtf NICHOLASVILLE, KY.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 *oz.* **Glass Jars** ***$5.25*** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case. Send for Catalogue.*

A. O. CRAWFORD,
Box 428. South Weymouth, Mass.
21D10t

CARNIOLAN QUEENS ONLY;

BRED in large apiary of Carniolan Bees, from Benton Select Imported Stock—$1.00 each. Carniolans are the gentlest and best honey-gatherers known. Send for Circular describing Carniolans. (Mention this paper.)
S. W. MORRISON, M. D.
25Dtf Oxford, Chester Co., Pa.

DR. TINKER'S SPECIALTIES.

THE finest **WHITE POPLAR** SECTIONS and the best **PERFORATED ZINC** ever offered to bee-keepers. Our new machine makes 50,000 perforations in a day. We also claim the finest strain of BEES for comb honey—the Syrio-Albinos. Price-lists of **QUEENS** and Supplies free. Samples of sections and zinc, three cents.

Address, **DR. G. L. TINKER,**
27Dtf NEW PHILADELPHIA, O.

Beautiful Italian Queens.

J. F. WOOD wishes to inform his former friends and patrons, that he is now filling orders promptly for those GOLDEN ITALIAN QUEENS that have given satisfaction to every customer for the past two seasons—at the low price of $8.00 per doz.; single Queen, 75 cts. *I use no lamp-nursery.*

☞ Do not fail to send for descriptive Circular; if you have not my 1886 Circular, send for that too.
JAMES F. WOOD,
29Dtf North Prescott, Mass.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Aug. 24, 1887. No. 34.

Mellit is the name given to a dry scab on the heel of the forefoot of a horse, because it is usually cured by a mixture of honey and vinegar.

◆

Sacrificed—that is what is done with every pound of white honey in sections which is sold for less than 20 cents. Honey sold the earliest will bring the least price! It will increase in value as the days grow shorter. Do *not* be in a hurry! Wait for the highest market price.

◆

The Insurance on J. B. Mason & Son's building, the burning of which we mentioned on pages 499 and 509, was $800. When the insurance was taken out, there was not nearly as much in it as there was when it burned, and the insurance was not increased.

◆

The Winnebago County, Ills., Agricultural Society will hold its thirty-third annual Exposition on Sept. 5, 6, 7, 8 and 9, at Rockford, Ills. C. C. Jones, of Rockford, Ills., the Secretary, will cheerfully send a Premium List upon application.

◆

Saint Joseph, Mo.—The Managers of the Inter-State Exposition at St. Joseph, Mo., have engaged the Editor of the AMERICAN BEE JOURNAL to award the premiums in the Apicultural Department, on Wednesday, Sept. 14, 1887. He will also deliver two lectures on "Bees and Honey" on the afternoons of Wednesday and Thursday, in Apicultural Hall. It is to be hoped that the bee-keepers of Missouri, Kansas, Iowa and Nebraska will make a grand exhibit of bees, honey, and apiarian supplies.

◆

When Bees are Swarming it is the old colony leaving the hive and abandoning the stores to the younger members. The old queen goes with them, and they seek a new location, with nothing for a beginning except what honey they fill themselves with as they take their departure.—*Selected.*

Melissa Officinalis (or Mellissa Balm, Bee-Balm, etc., as it is commonly called), has already been mentioned on pages 339, 475 and 506 of the BEE JOURNAL for the present year, as one of the best honey-producers in existence. Mr. A. C. Tyrrel, of Madison, Nebr., has sent to us a large stalk, and writes us as follows concerning it, on Aug. 15, 1887:

> That you may better determine whether or not the statements I have heretofore made as to the value of "melissa" as a honey-plant, are well founded, I send a plant which, in its natural state, measured 2 feet and 7 inches in heighth, 8 feet and 10 inches in circumference, and had up to date put forth 30,000 flowers, not counting the smaller laterals or buds, of which there are several thousands in various stages of development. If there is another honey-plant that can show a better record, I would like to know it.
>
> My plants commenced to blossom July 10, and are still in bloom. Profiting by the drouth last season, I carefully saved and sowed most of the seed I raised, and transplanted all the volunteer plants I had, otherwise my bees would have starved, as my Alsike and white clover was killed by the drouth. There is an abundance of golden-rod and other wild flowers, but not a bee has visited them. Our bees are in splendid condition, plenty of honey in the brood-chambers, and some surplus—all to be placed to the credit of "melissa" I believe "melissa" will thrive in waste places as well if not better than sweet clover, for the seeds are *sure* to germinate, even under the most unfavorable circumstances, are very attractive to bees, and bloom profusely; thus far, never having failed to secrete nectar during the severest drouth known in the history of our State.

We find the plant to be just as it is described above by Mr. Tyrrel. It is probably the oldest recognized honey-plant in existence. It was known to the Ancient Greeks to possess a wonderful attraction to the bees, and hence they named it melissa, or "the honey-producer." It is also called balm, balm-leaf, etc. It is credited with being a hardy-grower, is fragrant, and very productive, as is also shown by the above, where Mr. Tyrrel says that the plant sent us has already "put forth thirty thousand flowers, not counting the smaller laterals or buds, of which there are several thousands in various stages of development." It will thrive on either wet or dry soil, and will pay for cultivation for its honey alone.

◆

An Agricultural Society has been organized in Winnebago County, Iowa, and Mr. Eugene Secor is its first President. The time for holding its first Fair will be determined in a few days. The Winnebago *Summit* says:

> The organization of an agricultural society in this county is a long step in the right direction, and the officers and directors at the head of it is a guaranty that its affairs will be wisely and well managed.

The President being a prominent apiarist should give us a pattern in the line of a Bee and Honey Show. Mr. Secor will please take this hint and "work it out."

◆

Abuse is Not Argument.—It does not require much intellect in order to be abusive. No sensible person will throw much mud when rocks are at hand. When an individual stoops to use epithets in a discussion, that is *prima facie* evidence that nothing better is available. "If you have no case, abuse the opposing attorney, is the motto of pettifoggers, the world over.

Extracted Honey.—The discussions concerning the adoption of a new name for "honey out of the comb" has been *free* and *full*; and all the arguments for a change of cognomen, as well as suggestions for a new name, have received due attention.

The matter will now be referred to the North American Bee-Keepers' Convention (as to a jury) this fall, for decision. Two questions will be asked:

1. Is it desirable to make a change in the name of honey, when it is removed from the combs?
2. If so, what shall be the name?

The decision of that Convention shall be final, so far as the present discussion is concerned. If desired by those who cannot attend the Convention, suggestions or arguments may be sent to the Secretary, to be presented at the proper time to the Convention.

This will dispose of the question for the time being—and now let the discussion cease. We need the space for other important matters, and as soon as those communications on hand, which relate to the naming of honey, have received attention, the whole matter will be laid over until the Convention meets.

◆

Jealous Canadians.—On page 533, the Rev. W. F. Clarke has given a good reply to a jealous Canadian who took exception to our review on page 483.

The *Canadian Bee Journal*, on page 431, contains the following sentences:

> On this side of the line, America *always* indicates the United States. If we speak of the continent we speak of North America. The editor of the *Canadian Bee Journal* may be "impulsive," but he is not troubled with bilious attacks, and we trust that the editor of the AMERICAN BEE JOURNAL may soon be over his. It may probably relieve Mr. Newman's mind somewhat to know that Mr. Jones never saw the item over which all this splutter is made, until after it appeared in the C. B. J., as there happen to be two editors in connection with the *Journal*.

Our article was intended as an apology for our Canadian cotemporary, and to smooth over the trouble, and we are sorry to notice the "mud throwing" in the above paragraph.

If Canadians do ALWAYS mean "North America" when they speak of "the Continent," it shows that they are in error, for "the Continent of America" includes Canada, the United States, Mexico, Brazil, Chili, Peru, and all the other countries of South America. It will be easier for our cotemporary to own up to using the word American in an erroneous sense, than to try to cover up the error.

◆

The Fair at Creston, Iowa, will be held from Aug. 29 to Sept. 2, 1887. In the Apicultural Department the competition is confined to Union, Adams, Ringgold, Taylor, Clarke, Adair and Madison counties. The premiums amount to $46 on honey, bees, and apiarian supplies. E. R. Fosmire is the Superintendent, and I. M. Foote, Assistant. "The colonies of bees on exhibition must be the progeny of one queen, and exhibited in such shape as to be readily seen on two sides. Purity of race, docility, size of bees, and numerical strength to be considered." Premium lists may be obtained of the Secretary, S. A. Brewster, Creston, Iowa.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Preparing Bees for Winter.

Query 459.—Last year I took off the honey in the cases in September, and some that was partly filled I left on, thinking that the honey-flow might last to fill them, and business hindered me from getting them off until the last of October. The bees had the diarrhea badly in the spring. They were put into the cellar about Dec. 1, and taken out about April 10. Those not disturbed in October were free from diarrhea. How will it do when the flow of honey is about over, to take off the supers and put on empty frames in the middle or at the outside of the brood-nest, so as to avoid opening the hive again until next spring, being sure they have plenty of stores to carry them through the winter?—J. M., Illinois.

It was not the October disturbance that caused the diarrhea.—DADANT & SON.

Your plan is perfectly feasible.—J. P. H. BROWN.

Try it and report through the BEE JOURNAL.—G. M. DOOLITTLE.

I prefer to prepare bees for winter as early as possible, and not disturb them again.—H. D. CUTTING.

I fail to see the object of placing empty frames in the centre or outside of the brood-nest at the close of the honey season.—W. Z. HUTCHINSON.

The plan will probably work well, only I would not put empty frames in the brood-nest.—C. C. MILLER.

Sometimes it seems that October disturbing of bees tends to cause winter diarrhea. Again, this same disturbance produces no such effect.—JAMES HEDDON.

Any plan will work well that will insure a sufficiency of sealed stores, say 30 pounds, in such a position that the bees can get at and appropriate it. I should judge that the plan indicated would not insure this, and should hesitate about adopting it for myself.—J. E. POND.

In this locality bees begin to cluster about the middle of October, after which time it is not best to disturb them by taking honey or opening the hives. The plan suggested, or any other that will avoid disturbing the bees will be good. But bees may be quietly packed out-of-doors or carried into the cellar at any time without doing them harm.—G. L. TINKER.

If your bees had a chance to fly out frequently, after you removed the combs, the last of October, I cannot see how that could have injured them; but the plan you suggest I think is a good one, anyway, if you can be sure that the bees have plenty of good sealed stores for winter. There is nothing like an abundance of good sealed stores when it comes to wintering, and getting bees ready for the early honey harvest in my locality. Plenty of winter stores here beats all the wisest manipulations that can be brought to bear in my apiary.—G. W. DEMAREE.

I always aim to prepare my bees for winter as soon after the first September frost as possible. For winter I give five Langstroth, or six to eight Gallup frames at once, and remove all others as soon as the brood is all developed, usually in early October. Then put in a division-board and cover the bees warmly.—A. J. COOK.

The October disturbance may *not* have caused the trouble. Prepare the bees for winter in September (after the first frost), and then leave them undisturbed. Empty frames are undesirable anywhere in the brood-nest.—THE EDITOR.

Ants in the Honey-Room.

Query 460.—What is the best plan to keep little black ants out of a honey-room?—Mich.

Sprinkle in the openings and creases pulverized borax and sulphur.—J. P. H. BROWN.

Trap them with sweet, or destroy their nest.—A. J. COOK.

I know of no way of doing it except to line the room with tin.—G. M. DOOLITTLE.

We do it by proper building, with close carpentering and good mason work, and keeping everything clean and tidy.—JAMES HEDDON.

Kill them by feeding a mixture of Fowler's solution of arsenic and honey, placed near the nest of the ants, but protected securely from the approach of the bees.—G. L. TINKER.

Use plenty of camphor-gum in small cloth bags, laid around where the ants go. Tansy (green) laid around the honey-house is a great help.—H. D. CUTTING.

Make the room so close that they cannot enter. Failing in this, keep the honey upon a platform, the supports of which rest in dishes containing kerosene oil.—W. Z. HUTCHINSON.

I do not know. As many remedies have been made known as there are for a common cold, still the ants come, again and again. Try kerosene and powdered borax, pouring it into their nests. By following them up their homes can easily be found, and there is the place to apply the treatment.—J. E. POND.

It will be a good plan, if any who have had successful experience in the matter will minutely describe their method of procedure. I have had some experience in the house, and I do not know whether the ants were driven out by persistent trapping and scalding, or whether they left of themselves.—C. C. MILLER.

I have been worried this hot summer to the limits of indurance with ants in my honey store-room. A mixture of air-slacked lime and fine salt strewed around next to the walls of the room has helped matters decidedly in my case. Dr. Ed. Drane, of Eminence, Ky., I believe it was, gave me this remedy. I believe this remedy would be entirely effective if it was applied before the room was taken possession of by the pests. But when they once get possession of the place, it is no little matter to get rid of them entirely.—G. W. DEMAREE.

Sprinkle powdered borax about the hills, and scald the mounds with boiling water.—THE EDITOR.

Holy Land Bees and Italians.

Query 461.—How do the Holy Land bees compare with the Italians, in the production of comb honey?—Ohio.

They are no better than Italians.—J. P. H. BROWN.

They are not equal to the Italians.—G. L. TINKER.

I have not had them long enough in their purity to say which is best.—H. D. CUTTING.

They compare poorly in this locality. Some like them, but with me they are the poorest bees I have ever tried.—G. M. DOOLITTLE.

Italians are superior, especially so in the matter of capping the honey, and the German bees beat them all in this respect.—W. Z. HUTCHINSON.

I have Syrian bees and like them very much. They were a little cross the first year, but not since. I think them equal to Italians in all respects, and superior in some.—A. J. COOK.

From observation I should say that they compare very unfavorably. I have seen to it that none of the later-day varieties of bees have been brought into this vicinity. I believe that all the varieties brought in since the Italians, have been detrimental to American bee-keeping.—J. HEDDON.

I have never tested them, and know nothing of them save from reports. From such reports I have arrived at the conclusion that they are better bees for queen-breeders, than for those who are engaged in gathering surplus honey.—J. E. POND.

I am not sure that I ever had the Palestine bees in their purity. Such as I have tried are no improvement on the Italians. All the yellow varieties of bees are peculiarly adapted to storing honey to be taken from the comb with the extractor; not because the dark varieties of bees have superior traits as comb-honey producers, but because honey in the virgin comb can only be profitably produced in an extra good season, or an extra good location, and any sort of bees can do well under such circumstances. Both the Palestines and Cyprian bees cap their honey too thin, to make it white and showy. According to my experience the Italians finish their honey the finest of all bees.—G. W. DEMAREE.

Some seven years ago we purchased a ten-dollar imported Holy Land queen, put her into a choice colony of Italians in the Bee Journal Apiary, and watched the results very closely. We were obliged to admit that there was no improvement over the Italians in her progeny, and in a few months we superseded her. We much prefer the Italians.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ↖ northwest; ↘ southeast; and ↙ southwest of the center of the State mentioned.

For the American Bee Journal.

Reply to Jealous Canadians.

WM. F. CLARKE.

A correspondent at Ridgeway, Ont., writes me as follows:

> Undoubtedly you have read the editorial on page 483 of the AMERICAN BEE JOURNAL, about D. A. Jones, Canada, etc. It certainly calls for a reply from some Canadian, and no one could do it nicer or better than yourself. I wish you would reply to it. About four years ago I took a trip through the Western States, and was astonished to learn of the positive ignorance of the Western people in regard to Canada. Just wake them up to the fact that the Dominion of Canada, instead of being a *small* part of the Continent, is larger than the whole of the United States, with Alaska thrown in.

Many controversies and misunderstandings originate in want of precision as to the meaning of terms. This, along with a little national "touchiness," is what ails my correspondent. The AMERICAN BEE JOURNAL was referring to "the whole continent of America." When I went to school we were taught that there were *four* continents, Europe, Asia, Africa, and America. The continent of America includes both North and South America, and of it, the United States as well as Canada is only, comparatively speaking, "a *small* portion."

It is quite true that Canada is larger than the United States with Alaska thrown in, a fact of which I dare say, many of our American cousins are not aware. It is as well they should know it, for a variety of reasons. Instead of giving the figures that prove this, I will simply quote from Hon. Ben. Butterworth's recent letter to his fellow-representatives in Congress, concerning commercial union with this country, who says: "Canada has territory *larger in extent than the United States*"—the italics are his. I go warmly with the Honorable gentleman for the measure he is so earnestly advocating at the present time, and hope that the AMERICAN BEE JOURNAL and all bee-keepers throughout "the whole continent" will do the same. It is monstrous that there should be *the* existing trade restrictions between two peoples whose interests are so essentially one, and that we cannot have a free interchange of commodities. I cannot send for any little apiarian fixture from the United States without its cost being doubled by duty and customs fees.

But let us have done with all petty inter-national jealousies. "Before all nations is humanity." The broad-minded man is cosmopolitan in thought and feeling, regarding himself as a citizen of the world. I do not suppose that Mr. Ivar S. Young meant any invidious exclusion of Canada when he spoke of "the Americans" as "the first and greatest bee-keepers in the world." Europeans are accustomed to apply the term "America" to Canada as well as the United States. When I was in England, many of my fellow-countrymen said to me, "You are from America," or asked, "When are you going back to America?"

The ignorance of Western people about Canada is overmatched by that of English people. When I told them that we had single lakes in Canada big enough to submerge England, they received the statement with mingled incredulity and disdain. They have no idea of the vastness of this continent. On the vessel in which I returned, there was a Captain Collison who had military business at Quebec, Montreal, and Toronto. He told me that a friend of his handed him a letter on the eve of his departure, asking him to drop it in Tennessee as he went along. Great was his surprise to be told that the Captain wasn't going within 1,000 miles of Tennessee. Why, even the London *Times* the other day—the leading journal of Europe—committed a couple of palpable blunders. It spoke of the scene of the recent railway catastrophe as being St. Thomas, Manitoba; and the Hamilton (Ont.), *Times* received a pamphlet from its London namesake, addressed "Editor Hamilton *Times*, Hamilton, Ont., New York, U. S. A."

Guelph, Ont.

[The fact that Mr. Ivar S. Young wrote the same words to the bee-papers of Canada as he did to those of the United States, shows that he intentionally addressed the bee-keepers of both "Canada" and the "United States," as "the Americans,"—and correctly so, too.

Mr. Wm. F. Clarke's correspondent evidently thinks that the great continents of the world are Europe, Asia, Africa, Australia, America, *and Canada!* Mr. Clarke's reply to this idea, as a Canadian, is just, manly, and *broad*, and we congratulate Canadians upon having at least one who takes a cosmopolitan view of matters and things. As before stated, we have no desire to restrict the language of Mr. Ivar S. Young—it belongs alike to the bee-keepers of Canada as well as to the rest of America.

We also fully concur in the remarks of Mr. Clarke about a "commercial union" between the "two peoples, whose interests are so essentially one," and hope to see the day when there will be "a free interchange of commodities" between Canada and the United States. The fact is, we should like to have the whole of North America happily united as one Nation, and under one government! and we cherish the thought that we may yet live to see it accomplished.—ED.]

For the American Bee Journal.

Sowing Sweet Clover for Honey.

C. H. DIBBERN.

As suggested by Dr. Miller on page 501, I will "arise and explain" how I sow sweet clover. Some five years ago I was so impressed with the value of this plant for bee-forage, that I determined to put in a patch of about 1½ acres. I then drilled it, with a garden drill, in rows about 4 feet apart, and one inch in the row. I secured a good stand, and the next year it was immense, some of the plants measuring 14 feet high, and of course covered the ground completely.

I found it considerable work, however, to keep the weeds down the first year, and wishing to sow about an acre more the following year, I sowed it with oats, broad-cast; but I got the oats too thick, and after it was cut, I found that I had but a few scattered plants of the melilot surviving. The next year it was pretty thin, but since then it has been good, and has taken entire possession of the land.

Last spring, wishing to put in three acres more, I decided to sow with oats, and sow the oats quite thin, and the sweet clover thick, as early as possible. I succeeded nicely, and in June I cut four tons of oats hay, cutting it rather high, so as not to damage the sweet clover. This has paid me well for work and use of land. I now have a splendid stand of melilot. Although the ground is hard, and as dry as a bone, the clover has made a nice growth since cutting the oats, and I have no fears of its withstanding the drouth. The only trouble I have had is to secure a good stand the season succeeding the first bloom. In the case of my first patch, I sowed both fall and the next spring after sowing, and yet the second season was almost a failure.

As to the value of this plant, the experience of the present t(h)orrid summer, makes me think better of it than ever. During the early part of July, as about everything else had dried up and disappeared, the sweet clover was in full glory. It was wonderful to see the bees on it—sometimes two and three on a single cluster. The severely dry weather did not seem to affect it in the least, and it has produced an abundance of seed.

Of course in a season like this it could not be expected that two or three hundred colonies would store any surplus honey from 2½ acres, but I am convinced that it has been a great help to keep them from starving. Next year I hope to be able to report tangible results as to increase of surplus honey from sweet clover.

Milan, ↖ Ills.

For the American Bee Journal.

Securing the Necessary Rainfall.

HENRY L. PENFIELD.

The article of Thos. E. Hill, on "Drouths and Cyclones," on page 487, has greatly interested me. Bee-keeping and farming are intimately associated with us; the rainfall is an indispensable necessity, and, as we used to say when working out problems at school, the "unknown quantity" that we are trying to get. The editor invites the readers by a "post-script," to work out this problem of the cause of drouths and cyclones.

In this vicinity we are more interested in the cause of drouths, not having had a good crop year since 1879, nor a good honey year since 1883, from the reason of need of rain at seasonable times. We know how indispensable that factor is to the industries of farming and bee-keeping, and that they are consequently lotteries as now run, that are about to ruin us or any country where it is so uncertain as here.

Would it not be well for us mortals to have this part of the "whole business" under our control. I maintain that our Creator has nothing to do with the details of this important factor to success in the industries mentioned, but that it is left to us to control it if we would, like any other part of our labor. It is so in Dakota, where irrigation makes it as certain as any other employment.

Now the question is, what is the best way for the different locations to arrive at this much-desired result. I do not believe that a fervent prayer will come at it generally, for that has been tried so many times and failed, that we are "left" to some other alternative hereabouts.

It may be that there are local causes that make the drouth worse in some places than in others, and I think we are free to investigate this matter. We have noticed that the sun draws water from small or large bodies of water by evaporation, and that soon after the clouds gather and follow the water courses, and sometimes the wind carries them over and beyond these influences to be operated on by other influences. We know how apt it is to rain about the 4th of July in large cities, and in the vicinity of battle-fields during or shortly after an action. I believe, as Mr. Hill says in his article alluded to, that where the water was dammed up in ponds and lakes, more generally in farming countries, then when the sun was seen to have the effect of drawing water and collecting it in clouds, and at a near time to set off some explosive high in the air, that places accustomed to having the rains go around would be benefited by a good shower of rain.

We know that at certain phases of the moon we are more apt to get rain when the indications are favorable as before stated. I notice that a weather prophet predicts rain at a certain time in the vicinity of Quincy, Ills., near where there is a large area of bottom land in Missouri for evaporation, and his predictions are very often verified for his location.

When by investigation the causes of drouths in some places can be ascertained, the remedy may be sure to follow.

Hunnewell, 6 Mo.

Condensed from Agricultural Review.

Bees, Bee-Hives, Honey and Money.

REV. O. CLUTE.

Bee-keeping is still in its infancy. But it is an "infant" of vigorous health and remarkable promise. Modern inventions and discoveries have put it on profitable basis, and it has already drawn into its ranks clear-headed men and women who see the possibilities it offers to industry and skill.

In our practical pursuits we work to get money. In bee-keeping we get the money by selling our honey; we get the honey by the labors of the bees; we can keep the bees only as we have some suitable hive. I will here consider these points in reverse order.

HIVES.—Time was when the bee-keeper put his bees into a box, open at the lower end, and stood them in a corner of the garden to live or die, as luck might determine. If the colony became queenless and so soon died out; if the bee-moth soon filled it with its loathsome larvæ and so destroyed it; if it became so filled with honey that the queen had no cells in which to lay her eggs, and hence no young bees being reared, the colony soon dwindled away, it was all charged to "bad luck." Now all this has been changed. Intelligent bee-keepers to-day regard the man who talks about "luck" in bee-keeping, with about the same feelings as those with which we regard the superstition and ignorance of the man who gives any attention to the baseless guesses as to the weather, with which our wild weather-prophets amuse a too indulgent public.

But the intelligent bee-keeper today does not keep his bees in box-hives; he uses the movable-frame hive, in which the bees are led to build their combs; the frames are movable, and can be lifted from the hives.

BEES.—Having hives for the bees, the next thing is to get bees for the hives. To do this in the best manner we must understand something of the natural history of the bee. In every perfect colony of bees there are one queen, a small number of drones, and from 5,000 to 40,000 workers. The queen is the only perfect female in the hive. She lays all the eggs from which young bees are reared. In laying these eggs she is somewhat prolific, as she will lay from 2,000 to 3,000 a day when the weather is warm and honey is coming in. The physiologist who will successfully breed the laying qualities of the queen-bee into the Brahma hen, will give himself fame and fortune. The only office of the queen-bee is to lay eggs. She gathers no honey; she takes no care of the eggs after they are laid; she pays no attention to the young brood. Nature has decreed that in the division of labor in the hive, she shall attend strictly to the business of laying.

The drones are male bees. Their office as males is their only office. They do no work of any kind, not even collecting the honey on which they live.

The great body of bees in the hives are workers. They are undeveloped females, that is, females in which the reproducing organs have never fully developed. These workers do all the work of the hive, gather the honey, make the wax, build the comb, hover the eggs and young brood, nurse the brood, clean up the hive, and defend it from the attacks of robber bees. The queen is long and slender in shape—somewhat like a wasp. The drones are shorter and more robust. The workers are smaller than the drones, and not so chuncked in shape.

Of races of bees there are now two that are very widely diffused in America—the old black, or German bee, and the Italian bee. Of these two there is no doubt but the Italian is, on the whole, much the superior. It is more hardy, more prolific, more industrious, and more docile. To prefer the black bee to the Italian, is much as it would be for one who is breeding cattle to prefer the common scrubs to the beautiful Short-Horns, Herefords, Jerseys or Ayrshires. No bee-keeper can afford to keep the blacks. To change from the blacks to the Italians is a very easy thing. To do this it is necessary, in the first place, to introduce a pure Italian queen....During the working season the worker-bees live only about six weeks; the old ones are constantly dying off, their places being taken by the young bees that are reared in the hive. Hence in a few weeks the black bees in this hive, to which you have introduced an Italian queen, will all be dead, and their places supplied by young Italians, the product of her eggs.

The natural way for bees to increase is by swarming. In old times it was often thought that the more bees swarmed the more profitable they were. But now-a-days swarming is regarded by many bee-keepers with great disfavor. If it were possible to prevent swarming entirely, they would do so. They approximate as closely to no swarming as possible.

HONEY.—I come now to speak of honey which is, of course, the great end in keeping bees. No article is more attractive on the table than the delicate white comb with the lucent honey gleaming through, more lovely in color than the mysterious amber from the storm-tossed Baltic shores, more delicate in fragrance and flavor than the fabled nectar and ambrosia of the Olympian gods of old. Extracted honey is delicious and beautiful. The demand for it will rapidly increase, but it can never take the place of the comb honey. The demand for this will never be less than it is to-day. To produce it in perfection is a high art, to attain which many bee-keepers will always strive.

A very large part of the honey crop is now taken in the form of extracted honey. Comb honey is good and beautiful, but it has the disadvantage of the wax, which is indigestible, and which nobody cares to eat. In the extracted honey we have no wax, it is honey in its purest form. Many people associate extracted honey with strained honey; they suppose that all honey out of the comb is strained honey, but this is great injustice to extracted honey. In getting strained honey, all the combs from a hive, combs containing capped brood, and growing larvæ and pollen, and honey, are mixed up together, and then the liquid squeezed out. In this way there is obtained some honey, but there is also obtained the juice of the growing larvæ of the young bees and of the pollen, so that the honey has a rank flavor, a dark color, and associations by no means appetizing. But "extracted" honey is as different from this strained honey as it is possible to be. In getting extracted honey we get no pollen, no juices of bees or larvæ. We get simply the pure honey, without any admixture whatever. He, who on a cold winter morning, has never had pure, candied, white clover honey to spread on his hot cakes, has lived in vain! Life has lacked for him one of its chiefest charms!

MONEY.—He who can market his honey most successfully will have a great advantage over the one who fails in this. Comb honey, if put up in attractive packages, always commands a market, though the prices may not come up to the producer's ideas. It is wise to develop and supply the home market. Go to all the grocers in all the towns, villages and cities near you, and arrange with them to keep your honey on sale. In this way a large amount can be disposed of at fair rates. If your honey is very superior, and is carefully packed in good crates, it can be sent long distances on the railroads, and so reach the markets in the large cities.

By attending to the matter, a large home demand can be created for extracted honey. Talk it up in all places, public meetings and elsewhere; write about it in your local papers; let all know just how good and cheap it is. Have it nicely put up in glass jars or tin pails and offered for sale everywhere. Tin pails holding from one pound to twenty-five pounds are very excellent for retailing extracted honey, and are now coming rapidly into use. It is wise to have printed labels pasted on every package, telling that the contents are pure honey, stating briefly how it is taken, its quality, that in cold weather it will candy or crystallize, and that by standing the vessel containing it on the stove in another vessel containing water, and heating to about 180°, it can again be reduced to a liquid without injuring it.

The kegs and barrels in which the extracted honey was stored are the best package in which to ship it to the large markets at home and abroad. They are convenient to handle, and can be shipped across the continent or across the seas with no trouble. In this shape it has already become a staple in the great commercial centres, and the commercial bulletins in all the large cities now quote honey as regularly as they quote meats and wool. The foreign demand for American extracted honey is large and increasing. As the honey product increases with the rapid development to which this industry is destined, the foreign market will absorb no inconsiderable part of our annual crop.

Let nobody suppose that bee-keeping on a large scale is a pleasant pastime, which lazy and incompetent people can take up and pursue with success. For the lazy and the incompetent there is no place anywhere. It were as well for them to die at once. But any man or woman, who will learn the business, who will begin wisely, who will choose a good location, who will stick to it even if now and then there comes a year of disaster, can find in bee-keeping a healthful and independent pursuit that will give a good living.

Iowa City, ⟜ Iowa.

Apiculturist.

Bee-Keeping as an Exclusive Business.

L. C. ROOT.

Every bee-keeper of experience will answer this question for himself, but there are those who contemplate entering into bee-keeping who will hesitate. I have followed bee-keeping as an exclusive business for 15 years, and I have had an opportunity to observe very closely its many phases.

In earlier days, when the sources from which our honey came were more certain, when prices for honey ranged higher, and, above all, when comparatively few were engaged in the business, and there was a demand for even more honey than was produced, one was more fully warranted in making bee-keeping an exclusive business.

I have watched the changes in our pursuit with more than an ordinary degree of interest, as the results of the changes were to determine my own action in my plans for the future. The results of my experience lead me to the conclusion that it is far more safe to unite bee-keeping with some other business. There are many kinds of business which may be conducted in connection with bee-keeping with pleasure and profit. Among these are poultry-raising, stock-growing, small-fruit gardening, etc.

If farming were conducted in a better way than it usually is, and a few colonies of bees kept in connection with it, the two pursuits would be found to harmonize. As a rule, farmers attempt to work far too much land, and the consequence is a low grade of farming. Their crops, both of grain and fruit are inferior, and if there is a bee-keeper near them, they are apt to try and make themselves believe that the bees are the cause of their poor crops. If, instead of attempting to conduct a farm of 200 acres, they would put the same amount of work on 50 acres, and keep 50 colonies of bees, sowing Alsike clover, buckwheat, etc., their investment would be much less, and I think the results more satisfactory.

The present feeling with so many, that the interests of the farmer and bee-keepers are antagonistic, is very much to be regretted, for the facts, when investigated, will prove decidedly the reverse. From very close observation, I feel warranted in saying that the honey-bee is as truly a necessity in the propagation of field and garden crops, as are the rain, sunshine and soil. These facts will surely be proven by the harmony which will be produced in the desirable practice of uniting the branches of business referred to, and conducting them in such a manner as to bring about the harmony which the God of nature has established.

Stamford, ♀ Conn.

For the American Bee Journal.

Bee-Territory for Bee-Keepers.

OLIVER FOSTER.

Were it not for one point of practical importance, I should consider this question unworthy of further discussion. It seems also that Mr. Clarke has failed to "catch on" to the main idea of my article on page 406, which he answers on page 485.

He says that I killed my little "scheme," as he calls it, "dead at the start and at the finish," by doubting that it was practicable. He then proceeds to fight it as though it were something alive and dangerous; whereas I meant it not as a "scheme" or plan to be worked out, but rather as an illustration, though faulty as I admit, showing that a bee-keeper may desire a just control of the honey resources of his locality upon other and more important grounds than that he was the prior occupant; but it seems "impracticable" for Mr. Clarke to allow this point.

Near the close of his article he says: "There is an element of justice and of right in a prior occupant having a pre-emptive claim conceded to him ....Overcrowding is doubtless an evil, but I see no practicable legal check to it. There are two potent checks always in operation—respect for the rights of others, and self-interest, etc."

From what I have quoted, I find that we agree, viz: 1. That some kind of protection to avoid "overcrowding" would be just and desirable. 2. That such protection by law is probably impracticable. 3. That "respect for the rights of others and self-interest" are the best checks to the difficulty now available. 4. That these checks sometimes fail to operate. They may fail to operate because of a mistaken notion of self-interest, because the respect for the rights of others is lacking or is overbalanced by the stronger self-interest, or because the term "rights" is not properly interpreted.

Though these moral checks may be effective in preventing overstocking, still injustice may be involved in the result. Here is the practical point. Where a locality is overstocked, who has a moral right to occupy the field and who has not?

I venture the assertion that no locality will accommodate to advantage more than one honey producer, if he makes that a specialty, and I will venture a guess that within two or three miles of nearly every skillful and successful bee-keeper, there could be found one or more farmers or others who owned a few "bee-gums" when the specialist began. The enterprise and success of the specialist has influenced others to "dabble in bees," and the result is overstocking. Should the specialist now retire from the field in favor of the prior occupant? Would Mr. Clarke's "respect for the rights of others" lead him to do so?

The fact that a man was first on the ground, is a point in his favor; but the fact that another has natural and acquired qualifications to best utilize the honey resources of his locality, is, in my judgment, a stronger one in his favor. Of course any one has a moral right to keep bees in localities that are not fully stocked, but as soon as the number of bees increases beyond a certain limit, the locality is overstocked, and some one must fail. Then he who is lacking in qualifications will consult his own self-interest by respecting the moral rights of those best fitted.

About 18 miles from here a friend of mine keeps a few bees and sells standard supplies. He says that a few years ago he sold a thousand dollars worth of supplies a year to the farmers and others in his immediate neighborhood, and that now scarcely any of them have any bees. A well-managed monopoly of the bee-business would have saved these farmers hundreds of dollars. A general knowledge of the business on their part would have accomplished the same result. Whether the desired protection be by law or by the power of moral sentiment, the result should be the same—"the survival of the fittest." The utilization of our honey resources should be intrusted to those who are best qualified to accomplish it, with little or no regard to priority.

Mt. Vernon, Iowa.

Farm, Stock and Home.

Points of Excellence in Bees.

WM. HOYT.

Having for several years given considerable thought to the matter of improving our bees, I will briefly outline a method that, if carried out by a majority of the bee-keepers, would undoubtedly in a few years give good results.

The first and principal object in the keeping of bees is the production of honey, but there are several minor points that must be taken into consideration therewith. I will here introduce a scale of points, imperfect, I am well aware, but it will serve to illustrate my meaning:

To every colony of bees that gather sufficient stores for winter, I would allow one point; then for every 15 pounds of extracted honey, one more point.

The next desirable quality to be taken into consideration is hardiness and ability to stand our unfavorable winter and spring weather. Colonies that winter perfectly, and come through the spring without dwindling, should be allowed three points.

Next should come character and disposition. If a colony can be handled during a flow of honey without stinging, spread out evenly upon the combs and remain quiet while being examined; good to repel robbers and moths, and not meddlesome (that is, not attempting to rob weak colonies or putting out their keeper's eyes, when molested) I would allow three points.

Thus a colony having perfect disposition, wintering perfectly, and getting 45 pounds of surplus honey, or 90 pounds of extracted honey, and having sufficient stores to winter, would score ten points.

I think that excessive natural swarming should be discouraged, consequently I would not allow any credit for swarms cast, but would commence a new account with the new colony. The bee-keeper, having kept a record with each colony for one year, is then ready to select say about 4 colonies that have, during the previous season, scored the highest number of points from every 10 colonies, from which to rear queens and drones; two of the selected colonies to be used for the rearing of drones, and the remaining two being used for rearing queens. No drones should be allowed to issue from the other colonies selected for that purpose.

For the American Bee Journal.

Some Experiences of the Season.

J. D. MANDEVILLE, M.D.

I have kept bees for the last 11 years, and every year brings with it some new experience and knowledge, as well as increase and surplus. This year my profits will consist, in part, of experience. I began with 2 colonies in 1876, and have increased them to about 110 or 120 colonies, but I now have 46 colonies, having lost 51 colonies with diarrhea in the spring of 1877 from out-door wintering, I think, which reduced my number to 3 colonies; since then I have wintered my bees in the cellar, with little or no loss, and last winter I wintered 42 colonies without any loss.

This being a remarkably dry season, I fear that the profits to apiarists will be largely in experience, with but small surplus and little or no increase. I am a little more fortunate, however, than some others who, desiring to increase their number of colonies by natural swarming, kept off the supers until the white clover honey-flow was over, and did not get any honey, nor much increase. But I did not desire any increase, so I put on my supers early, and I think I have 800 or 1,000 pounds of surplus honey in one-pound sections, if I take it before they carry it below into the brood-chamber. I think that the coming fall and winter will furnish a bitter experience to the bee-keepers in this locality, for if the bees are not fed, they will perish for want of winter stores, as some colonies have already left their hives for want of food to sustain them.

The high mercury has given me some new and profitable experience, as it has been most of the time, for the last month, from 95° Fahr. to 100°, and several days it has risen to 102°, 103°, 104°, and one day 106°; but on Sunday, July 17, it stood for six or seven hours at 104° in the shade, and I think not less than 130° in the sun, although I did not try the thermometer in the sun on that day, but other days, when it was 102° in the shade, it has been 127° in the sun, and my thermometer varies but little with the one kept at the State Agricultural College at Urbanna, ten miles northwest of here, which has been 103½° Fahr.

I have never used shade-boards, but have always followed Mr. Doolittle's plan, viz: kept my hives painted white, and I have never had any trouble with honey and comb melting down; but on the day mentioned it was too hot for one of my best colonies that gave me 144 pounds of surplus comb honey last year, and this year it had filled two supers of 36 pounds each, and I had raised them up and put on the third super, when, to my surprise, the honey in the two supers melted and the comb fell down, killing and drowning about one-third of the bees, and ran out at the entrance. The high temperature killed all of the brood, and I assure you that I had a sweet mess of melted comb, honey, bees and brood.

The colony was immediately attacked *en masse* with robbers, which was equal to the multiplying the former complication by ten thousand. It was Sunday afternoon, as is usually the case when bees get out of joint, as we sometimes say; and if a cow ever does kick over the milk-pail, she is sure to do it when you are trying to do a nice job of milking, with your Sunday pantaloons on; so this calamity occurred on Sunday afternoon. I saw at once that the "critter was in the well," and the "good book" says that if it falls in on Sunday, that you may help it out, but I did not; I let the colony alone until nightfall, when I carried it to the bee-cellar, and removed the supers and dead bees and brood; I found the queen all right. I transferred the frames and bees to another hive, put them on another stand in a secluded spot, and all are doing nicely, and still have plenty of honey for winter.

Perhaps some one may say, "I told you so; why did you not use shade-boards." And so I would, if I lived in a latitude where the mercury was in the habit of running wild, but I do not think I will in my present location, for they are very much in the way, besides adding a great deal to the labor of the apiary; and if I had lost the entire colony, its value would not have equaled the expense of shade-boards for 11 years.

Philo,⊶ Ills.

For the American Bee Journal.

My Experience with Sweet Clover.

WILLIAM STOLLEY.

In answer to the request of Dr. C. C. Miller, on page 501, respecting sweet clover, I will say that I am one of those who has acted upon the advice frequently given by the editor of the AMERICAN BEE JOURNAL, to have some sweet clover, not only along public roads and along railroads in the vicinity of my apiary, but I also have cropped as much as 12 to 13 acres of good land on my farm for three years, after being sown with the seed of this excellent forage plant. I have fully reported upon the result of my experiment in 1886, in the BEE JOURNAL, on pages 746 and 748.

This year, being an "off" year for so many bee-keepers, I will at this early day report once more the result of my experiment this season, and thus at the same time comply with the Doctor's request. Up till Aug. 1, I had taken 732 pounds of capped honey, leaving nearly all the uncapped in the supers. I think that I estimate low when I say that another 500 pounds are capped now and ready for the extractor.

If grown for a crop, melilot may be sown as well in the autumn as in early spring, and the land should be treated the same as if sown to oats or wheat. In the latter part of June it is ready for the mower, and will yield a heavy crop of most excellent fodder for cattle. I leave it not longer in the field than is absolutely necessary, and salt it quite liberally when stacking it. Cattle prefer it to any other food, if thus prepared and fed, after they get used to it.

I do not crop it a second time the first season, although I think it could be done without injury to the plants; but in the fall, when other pastures are failing, the sweet clover pasture is at its best, and will hold out late in the season—yet into winter. If an early honey crop is desired, it should have its own way the following spring, but a heavy crop of fodder may be taken from melilot clover field about June 15 the second year, and it will grow up and produce a crop of nectar-yielding bloom for the bees, which will last well into winter.

On an average, I have secured now about 60 pounds of capped honey per colony, spring count, in the supers, and there is more than required for wintering the bees on, left in the brood-chambers. From 20 colonies in the spring, I was compelled to increase to 34 colonies, all of which are ready for the fall crop now. Rearing my queens in advance from selected colonies, I strengthen the nuclei, as old colonies require weakening, to prevent swarming, by taking frames with hatching brood and adhering bees. For this happy state of affairs I have to thank the melilot clover, in conjunction with alfalfa.

Our natural honey crop begins about Aug. 15, and may be a good one this year, since all my bees are in the very best condition to gather in the nectar, if Nature should produce it.

In concluding, I will add that the melilot, when nearly through blooming, should be plowed under well. This requires a good sulky plow and a strong team. The harrow should "follow" the plow, and not be dragged in an opposite direction, so as to avoid the uncovering of the heavy and bushy stalks put under ground. It then will soon decay. It is best to defer the harrowing until the following spring, and when the seed has well grown.

This harrowing in the spring will thin out the thickly set plants sufficiently to make a proper stand, "if done judiciously;" and in June the field is again ready for yielding a heavy crop of fodder. This summer, in June, I plowed under 6 acres of melilot when about 2 feet high, and after taking a crop of millet this fall from the land, I will see what the effect of this treatment of the land will be, when sown to spring wheat next spring.

The roots of the melilot penetrate deep into the subsoil, and by decaying, opens up channels for moisture and minneral salts to rise to the surface, which otherwise would be held, and would not be available for plant growth.

Grand Island,⊙ Neb., Aug. 14, 1887.

For the American Bee Journal.

Legislation for Bee-Keepers.

J. O. SHEARMAN.

What does all of the talk about bee-legislation amount to? No one has come to any conclusion as to what is best to be *done*. Mr. Clarke, on page 485, has, in his usual fluent manner, shoved Mr. Foster to one side, and good-naturedly sits down on the spot vacated. Mr. Foster did, at least, "break the ice," and propose something to be done, even allowing its possible impracticability. Did Mr. C. get any further? or as far toward a solution of the problem?

Now I believe if each bee-keeper would state his views in a positive, instead of a negative way, as to what conditions would be best to try to bring about to regulate the bee-keeping industry, then compare notes at the joint meeting in Chicago next November, some good might be done by coming to an understanding as to the rights of bee-keepers and others, comparatively. It would be better for some legislation upon the subject to be proposed by the bee-keepers themselves, rather than by outsiders, as they evidently understand the merits and demerits of the case better.

Now, as a case in point, note the bill before our (Michigan) legislature last term. I know the party who presented that "bill," also the situation as to what started him on the war-path. He went to see our supervisor, and tied his horse (as usual) near the front gate; the door-yard between the gate and house being occupied by a few colonies of bees (a dozen, may be), made it uncomfortable for the horse, and put both gentlemen to some trouble to get it away without a serious accident. Now both of them are intelligent and fair-minded men in general, but not posted in bee-matters; consequently that "bill."

My idea in regard to legislation would be something nearly as follows:

1. No one shall keep any hives of bees within 4 rods of a public highway, without a close fence at least 8 feet high between the hives and the highway.

2. No one shall keep any hives of bees within 4 rods of any place where horses are obliged to be worked in warm weather (or summer time) without an 8-foot fence, or its equivalent between, etc.; also the same stipulation as to proximity of school-yards, etc.

3. Any one keeping bees near a public highway, or near where horses must pass, shall keep a plain notice posted in a prominent place saying, "Tie no horse near this place, for fear of injury by bees."

4. Any professional bee-keeper who keeps improved strains or breeds of bees, and rears queens to sell, or pure queens of improved breed for the purpose of improving his stock, shall be entitled to protection in the following manner: If any one shall bring native or grade bees and let them stand within two miles of the bee-yard of the first comer, the first-named bee-keeper may notify him (the new comer) to remove his native or grade bees beyond the two-mile limit, and give a 30 days notice to that effect, in writing, and then if the new arrival shall continue to keep his bees within the two miles, the first bee-keeper may collect $7 per day as damages, and prosecute the second bee-keeper for a misdemeanor, and subject him to fine or imprisonment, as the court shall direct, etc.

5. Nothing in the previous clause shall hinder the second bee-keeper from purchasing pure queens, and re-queening his colonies, if of the same breed as the first-arrived bee-keeper.

6. Bees and bee-keepers' properties shall be held as property, and be liable to assessment in proportion to the valuation of other property with this exception, that no bees under 6 months of age shall be assessed. (N. B.—That leaves it to assess the queen and hive).

I do not see how any one could be legally prohibited from keeping bees or anything else on his own premises, except upon the grounds of being a nuisance or a hindrance to public improvement in some way, no matter whether they are the first or last on the ground.

The first three clauses would be restrictions upon specialists, and would naturally incline the majority of any legislature to favor such enactment. The last would gravitate toward doing away with the one-horse, puttering bee-owner, as well as to discourage others from going in.

Now let us hear from others, and improve upon this, or bring forward something more practicable.

New Richmond, ♀ Mich.

Nebraska Farmer.

Bee-Keeping in Nebraska.

G. E. T.

The past three years, during which time I have kept bees, have been considered poor seasons for honey; judging by what mine have done, I conclude that Nebraska must be one of the best places in the world for bees. One reason is, perhaps, because of our early spring flowers, with a succession of bloom of various kinds, sufficient at all times for them to live upon and rear their brood, until the honey harvest, which comes from what is commonly called heart's-ease. They also work upon Spanish-needles, sunflowers, etc. If we had clover, it would enable them to do still better. Another is, that our dry atmosphere is favorable for wintering; it has been said that more bees die from dampness than from cold.

Bee-keeping is very interesting and particularly desirable for those who wish to be out-of-doors for the benefit of their health. There is much to learn, but half an hour's instruction will enable any one to proceed with the business by reading bee-books for help, as it is needed. As one can work much more at ease, if there is no fear that the bees will sting, I think it better to wear a bee-hat and gloves. Prepared in this way, there is no need to feel nervous.

To increase colonies by division is simply to take a part of the frames covered with bees from one hive, and place in another a little distance away. Cyprians and Italians will remain quietly upon the comb, when taken from the hive, and it is easy to find the queen, which, in dividing, I think it better to do. Take her to the new hive with the frames of brood that are nearly ready to hatch, leaving the larvæ and eggs for the old colony, as they will do better in rearing a queen. This can be done in 10 or 15 minutes usually, and is less trouble than to hive a swarm from the limb of a tree.

I have been told that black bees gave but little profit last season. It is therefore a matter of interest, which can be expressed in dollars and cents, to know what the yellow bees did, but as I know of no Italians or Cyprians except my own, in this country, I can only tell you of them.

Last May I found that the last remnant of my bees had dwindled away. As they had got safely through the previous winter without protection, I supposed they would again, and, like many others, did not expect such a winter. It was a loss of their full value, notwithstanding the fact they had paid for themselves several times, as I had sold bees enough to pay the first cost, and then increased from 18 to 60 colonies, besides taking 1,500 pounds of honey.

To begin with again, I sent South for bees, 20 pounds, enough for three pretty good colonies. I bought three queens at that time, and three later. I increased them to 39 colonies, and extracted 300 pounds of honey. They are now put up for winter with from 25 to 50 pounds of honey per colony. Having the combs already, enabled them to do more than they otherwise could, though the use of comb foundation would have been nearly as good.

A swarm of black bees flying over in June, I brought down by ringing a bell—hived them, and gave them combs. They filled up their hive—nothing more, except, that in September I took one frame of brood and 15 pounds of honey; I did not Italianize them, for I wanted to contrast them with yellow bees which were divided five or six times, and then some of those divided again.

For the American Bee Journal

Proposed Labels for Honey.

HENRY A. COOK.

I have noted the muddle over names of honey. How are the following for one man's solution of the difficulty?

PURE COMB HONEY,

[WARRANTED.]

Just as Gathered by the Honey-Bees.

FROM THE APIARY OF

M. C. GODFREY, Chicago, Ills.

PURE HONEY,

[WARRANTED.]

Taken from the Comb by Machinery.

FROM THE APIARY OF

M. C. GODFREY, Chicago, Ills.

I know it is simple, but it "tells the truth," and avoids ambiguous terms. "Pure honey" is all honey; "pure comb honey" is both honey and comb.

Eureka Springs, ♂ Ark.

[For a name we prefer "honey," or "honey in the comb," without using the word "pure"—because that implies that there is an *impure* or *made* article, which, so far as the latter is concerned, is erroneous.—Ed.]

For the American Bee Journal.

The Honey Crop of Vermont.

S. B. RYDER.

I hear it reported that there will not be a large crop of honey in Vermont this year. I send some individual reports which have reached me. They are as follows:

V. V. Blackmer, of Orwell, says that he will not get as much honey as last year. He has over 100 colonies, but a number are weak.

S. L. Peck, of Ira, expects 500 pounds of comb honey; he has 23 colonies, but only a part of them are in condition to yield a surplus. His bees are doing fairly well.

Alexander Fraser, of Hinesburgh, has 103 colonies, and about 3,000 pounds of surplus honey.

I. N. Howard, of Low Hampton, N. Y., recently took 2,400 pounds of comb honey, and 500 pounds of extracted, from 50 colonies.

E. L. Westcott, of Fair Haven, was recently offered 14 cents a pound for his honey, which consists of 3,000 pounds of comb and several hundred weight of extracted.

It is reported that G. G. Taylor, of Fairfield, commenced a few years ago with 2 colonies of bees, now has 123 colonies, and makes more money from his bees than any owner of a dairy in town.

In regard to plants for honey: I have seen more domestic bees on burdock blossoms than on any other plant I have observed. Still, I would not recommend the growing of burdocks, as they are well-rooted, noisome pests, unless one can make a contract with a certain medicine company for the material from which to manufacture "burdock blood bitters."

I wish that bee-keepers would put their observation and experience together, and in the course of time compile a table giving the relative value of plants for honey, as accurately as can be ascertained. I have never heard of such a table, and the various scattering reports seem to differ widely on this point.

Brandon, ♂ Vt.

Convention Notices.

☞ The Iowa Bee-Keepers' Association will meet in the bee-keepers' tent on the State Fair Grounds at DesMoines, Iowa, on Sept. 7, 1887, at 10 a.m., and continue as long as may seem profitable. All are invited. A. J. NORRIS, *Sec.*

☞ The Cedar Valley Bee-Keepers' Association will be held at Waterloo, Iowa, on Sept. 6 and 7, 1887. The Cedar Valley Bee-Keepers' Produce and Supply Union will meet with the above Association. This meeting will be made both pleasant and profitable to bee-keepers. All interested in apiculture are cordially invited to attend. Do not be discouraged with this year's crop, but come and have a good time. H. E. HUBBARD, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Local Convention Directory.

1887. *Time and place of Meeting.*

Sept. 6, 7.—Cedar Valley, at Waterloo, Iowa.
H. E. Hubbard, Sec., La Porte City, Iowa.

Sept. 7.—Iowa State, at Des Moines, Iowa.
A. J. Norris, Cedar Falls, Iowa.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Best Rain of the Season.—I. M. Foote, Creston,♀ Iowa, on Aug. 17, 1887, writes:

Bees have done but little here on account of the drouth. I am in hopes that there will be enough to make a little show at our Fair, commencing on Monday, Aug. 29. We had the best rain of the season yesterday; about 2 inches of water on the level.

White Clover and Buckwheat Blooming.—W. K. Bates, Stockton,⌕ Minn., on Aug. 17, 1887, writes:

Bees are doing the best they have for years. The late rains have broken the drouth, and white clover is as white as a sheet. Buckwheat is the same, but bees are not on it much. They seem to go to the Mississippi river bottoms in preference, and the wild flowers, which seem to be loaded with nectar. I have several colonies that are in the third section-case.

Bees Wintered Well.—John Davis, (30), Allison,⌕ Ills., on Aug. 1, 1887, says:

My bees wintered without any loss last winter. I have had 4 swarms and 60 pounds of honey.

Defending Extracted Honey.—J. W. Bayard, Athens,⌕ O., writes:

Being one of a large fraternity of bee-keepers, in this land that "flows with milk and honey," I feel constrained to enter my emphatic protest against the proposed change of name of what is now called "extracted honey," to some new name that will cause disturbance all along the line, without bringing anything in return but confusion, and a fresh harvest of explanations to all comers, both old and new, with a laudable suspicion on their part that the new "shuffle" is to cover up some fresh scheme of roguery that the old name failed to accommodate. We have once been through the "mill of the inquisition," and answered all questions to the satisfaction of consumers, and I know of no other parties that we have any reason to consult or accommodate. I have seen no evidence that the name is a misnomer, or at any time been the subject of criticism; on the contrary it has for nearly a dozen years been thoroughly incorporated into all our bee-literature, as well as all our commercial transactions, and become a living thing, I trust, to stay forever! The name was a necessity in the beginning, and was well chosen, and I know of no authority competent to change it. I have no objections to any one who is fond of light work, to change the name to suit themselves, but I believe the business world will stand by the name of "extracted honey."

Honey is very Thick.—T. F. Bingham, Abronia,♀ Mich., on Aug. 12, 1887, writes:

I breathe easier; we have had rain. We have a little honey, yet this has been the nearest to a failure of any season since I have been in the bee-business. I have about 2,000 pounds of honey in one-pound sections. I have not extracted any yet, and probably shall not until the bees are being prepared for winter. The honey is the thickest I ever saw.

Another Plea for "Extracted."—H. L. Rouse, Ionia,♂ Iowa, on Aug. 13, 1887, writes:

I wish to put in another plea for "extracted." I think that "extracted" is the proper name, and I am in favor of sticking to it. Extracted honey is a name familiar in nearly every household in this part of the country. I believe it would be unwise to change it to some new name. I hope that all in favor of extracted, will speak up. What would people think if I should go to the Fair with my extractor, and tell the people that this is a "nectar extractor," or this is a machine for procuring "combless honey," "clear honey," or "pure honey?" No, I would rather call it a honey extractor. I have not had a pound of surplus honey this year. My bees have not enough to winter on yet.

Thrashed Honey, etc.—Mr. W. O. Koher, Cromwell,♂ Ind., on Aug. 14, 1887, writes:

I would propose to call honey out of the comb "thrashed honey;" for it certainly has a direct meaning to honey out of the comb. Wheat is wheat, whether it be thrashed or not; honey is honey whether it be in or out of the comb; so I would suggest "thrashed honey" for short. Bees in this locality are not doing much, on account of excessive dry weather.

[Thrashed, according to Webster, means "to beat out or off," hence it is used to describe the beating out or thrashing of wheat, rye or oats. It is *not applicable* to honey, in any sense, shape or manner.

The object of taking the honey out of the comb, is to preserve the comb for further use—to *thrash* it would destroy the comb, and thus defeat the object of trying to separate the honey and comb.

Then, it would also become necessary to *strain* the conglomerated mass through a cloth to get the honey out of it; the comb would be destroyed, the work doubled, and we should retrograde to the methods of the "dark ages of the past." Oh! no! the adoption of such an inappropriate word is preposterous, and the thought not to be entertained for a moment.—Ed.]

Loose Honey.—Julius Hoffman, Canajoharie,⊶ N. Y., on Aug. 15, 1887, says:

As I am to a considerable extent engaged in producing and selling what has been so far called "extracted honey," I take great interest in discussing the matter of giving this kind of honey as practicable and comprehensive a name as can be found. I suggest that it be called "loose honey." As a motive to this suggestion, I will state that quite frequently customers call for "loose honey" when they wish to get honey in pails, jars or barrels. The word, it seems to me, is short, comprehensive, and practical. I also think it would not sound badly as a commercial term to say "honey in the comb," and "honey loose."

[Oh! no! It has such "loose" meanings, is so "unconnected and rambling" that it will never do as a name for honey. It is entirely "too loose."—Ed.]

Ex and Ex-Comb Honey.—Jacob Buch, Mt. Eaton,♂ O., says:

If we must have a new name for extracted honey, I would suggest the name of "ex" or "ex-comb honey."

[It would be no improvement, to say the least. We much prefer "extracted honey" to ex-comb honey. Its *ex*-cellence is not apparent.—Ed.]

No Reason to Complain.—Ira Barber, De Kalb Junction,♂ N. Y., on Aug. 10, 1887, writes:

The honey season is over in northern New York, and but a small amount of honey is the result. I reduced my stock of bees in the spring to 117 colonies, and secured a little short of 5,000 pounds of comb honey in one-pound sections, and 1,000 pounds of extracted honey, and have no reason to complain. Many bee-yards here where the same number of colonies, and in some cases where more were kept than I had, did not get one-fourth the amount of honey that I did. One great cause of a short honey crop was that the bees were in poor condition in the early part of the season. When basswood came on, the weather was so hot and dry that there was but little honey secreted in the blossoms, and that early in the morning and late in the afternoon. There was but three days that the bees kept at work all day while basswood was in bloom. Swarming was rather light in nearly all the apiaries. The quality of the honey is as good as I ever saw, and the bees have an abundance to winter on, of fine clover and basswood honey.

Little Surplus and Few Swarms.—Francis M. Holt, Palatine,♂ W. Va., on Aug. 16, 1887, says :

Bees have done nothing in this part of the State. We have had but few swarms, the most of them coming late. There will be little or no surplus at all, this being the poorest season we have had for several years. Bee-keepers are very much discouraged.

Old Name Good Enough.—Geo. E. Hilton, Fremont,⊸ Mich., on Aug. 17, 1887, says :

I have watched with interest for the coming name for extracted honey, and as yet I fail to see any improvement suggested. Now, I am neither a scholar nor a grammarian, but so far as I understand I fail to see wherein the word "extracted" is a misnomer. The best authority I have at hand says the meaning of the word is, "To draw out, to remove forcibly," and that is just what we do when we secure extracted honey. I have labored hard and earnestly for ten years, to instruct the consumers of my honey what extracted honey is, and I very seldom get an order for strained, squeezed or rendered honey now, and I for one do not want the name changed. But suppose honey, or combless honey is adopted, what are you going to call the "extractor ?" I suppose it will be "the honey machine," or "combless honey machine." I think the old way is good enough.

In Favor of "Extracted."—A. Durward, San Marcos,⊙ Tex., says :

I must put in a word for the name "extracted." After doing all we could for years to crowd out the name "strained," and substitute that of "extracted," we would simply make ourselves ridiculous by now trying to change again.

Honey Season in Minnesota, etc.—C. Theilmann, Theilmanton,⚲ Minn., on Aug. 13, 1887, writes :

This has been a dry, hot summer, and the bees did not gather any honey from white clover, except what they needed for themselves from day to day, but they did nicely on basswood, from which I got over 2,500 pounds of comb honey. They have not stored much since, as the dry weather held on until 3 or 4 days ago, when we had some good showers. Last night a heavy rain set in, and has continued all day to-day, and is still at it now—6 p.m. The ground is well soaked now, and it will help the bees yet, if we have good weather for them hereafter; also corn and potatoes, which were suffering for want of rain. The wheat crop here is almost an entire failure on account of the multitudes of chinch-bugs. Oats are good ; corn promises good where the bugs did not destroy it; some fields are nearly ripe. I never expect to call for aid from the Bee-Keepers' Union, but it pleases me that the General Manager has managed all the difficulties so well, and come out ahead on them all so far. I hope that he will be successful hereafter.

Poorest Season in 10 Years.—Alex. W. Stith, Portland,♂ Ky., on Aug 11, 1987, writes :

I have kept bees in northeastern Kentucky for the past ten years, and the season of 1887 has been the poorest that I have ever experienced. From 60 colonies in fair condition in the spring, I have taken 70 pounds—just to please the children. Although my bees for the past few days have been gathering some surplus in the morning (probably from buck-bush), yet there is hardly a blossom to be seen, as we have not had sufficient rain for nine weeks, to lay the dust, and everything is burned up. Stock is nearly ready to starve on our blue grass pastures, and bone-wagons have made there appearance. The mercury has for the past six weeks been dancing around between 90° and 106°, and I am fearful that many colonies of bees in Kentucky will not have sufficient stores to winter on.

Fuel for Bee-Smokers.—J. L. Harris, of Chicago,♂ Ills., says :

One of the very best, if not the best material for smokers, is old cedar bark. It can be procured now nearly everywhere from railroad ties or fence-posts. It lights readily, gives but little heat or ashes, and *never* goes out, even if placed where there is no draught; it imparts no unpleasant ordor to the honey. Be sure and lay in a good supply when you are where you can get it.

Extracted Honey, Catnip, etc.—Frank M. Baldwin, Marion,⊙ Ind., on Aug. 15, 1887, writes :

The season seems to have been a little better with us than in many other parts of the country, though we will have less than half a crop of honey. There was plenty of bloom, white clover, Alsike, and linden, but the nights were too cold in June for the secretion of nectar. The bees gathered some surplus in July, from red clover (probably 30 pounds per colony), which, added to what we got from the June blossoms, will give us about 50 pounds of extracted honey per colony. It seems to me that it is a waste of time and effort to try to find a better word than "extracted." It has been in use too long to be easily superseded by any new term, especially as any new one is open to more objection than the old. No name can be found that will not be misunderstood, or that will not call for unlimited explanation from honey producers. Catnip is a good honey-plant with us. There was nectar in it all through the drouth—enough to keep the brood-chamber full of brood, though the plants are not numerous enough to give us anything in the upper stories of the hives. I shall gather the seed and scatter it in all waste places. Ordinarily the hybrids are our best workers ; this year the Italians are far ahead.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—We quote : In 1-lb. sections, 15@18c The color makes the difference in price.

BEESWAX.—22@24c. R. A. BURNETT.
Aug. 12. 161 South Water St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 14@15c.; dark 2-lbs., 11@12c.: choice white 1-lbs., 18c.; dark 1-lbs., 12@15c. Calif. white 2-lbs., 15c.; extra C 2-lbs., 13@14c.; C 2-lbs., 11@12c. Extracted, new crop, choice white, 8@10c.; dark, 5@7c ; Calif. white, 8c.; amber, 6@7c. Prices firm. Very little honey is being received.

BEESWAX.—20 to 22c.
Aug. 16. HAMBLIN & BEARSS, 514 Walnut St.

CLEVELAND.

HONEY.—Choice new white 1-lb. sections sell as fast as they arrive, at 16c.; 2-lbs., 14 to 15c.; second grade, 13@14c. Extracted, 4@6c. Demand good.

BEESWAX.—25c.
Aug. 9. A. C. KENDEL, 115 Ontario St.

DETROIT.

HONEY.—New comb is very scarce, and quoted at 17@18c. per lb.

BEESWAX.—23c.
Aug. 17. M. H. HUNT, Bell Branch, Mich.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white liquid, 5@5½c.; amber colored and candied, 4@4¾c.—White to extra white comb, 12@14c.; amber, 8@11c. Receipts light.

BEESWAX.—17@20c.
Aug. 13. SCHACHT & LEMCKE, 122-124 Davis St.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ½-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.

BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4⅛@5c.; amber and candied, 4¼@4⅜c. Receipts light; poor crop.

BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice new 1-lbs., 14@15c.; old 1-lbs., 12@12½c.; 2-lbs. not in demand, 10@11c. White extracted in kegs and barrels, 7@7½c.; in small tin cans, 7½@8c.; dark in kegs and barrels, 6@6½c.; in small tin cans, 6½c. Market ready for new crop.

BEESWAX.—25c.
July 21. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Comb honey has been sold out perhaps better than ever before at this time, only remnants of dark honey being left. Choice white would readily bring 15c. in a jobbing way.

BEESWAX.—Fair demand,—20@22c. per lb. for good to choice yellow.
Aug. 19. C.F.MUTH & SON.Freeman & Central Av.

BOSTON.

HONEY.—We quote : Best new white, in 1-lb sections, 16@18c.; best white 2-lbs., 14@16c. Extracted, 6@8c.

BEESWAX.—25 cts. per lb.
Aug. 18. BLAKE & RIPLEY, 57 Chatham Street.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this: Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discusson—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail. 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St,. Philadelphia, Pa.
31A13t

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers. sent by mail for 10 cents.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

WE ARE READY TO RECEIVE Shipments of

Nice Comb Honey

in 1 and 2 pound Sections, for which we shall pay **cash,** or sell on **Commission,** to suit the shipper. Correspondence solicited.

CHAS. F. MUTH & SON,
Freeman & Central Av., CINCINNATI, O.
34A2t

WANTED,

TO correspond with parties who have any **Honey, Apples, Potatoes, Peaches, Fruits or Vegetables** of any kind for sale or for shipment. Address,
EARLE CLICKENGER & CO.,
34A2t 117 South 4th St., COLUMBUS, O.

A Good Market for COMB HONEY.

THE Highest Market Price will be paid for COMB HONEY. Before disposing of your Crop write to
H. L. NICOL & CO.,
KANSAS CITY, MO.,
Proprietors of "Red Cross" Brand Honey.
33A4t

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

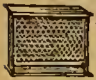
13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation



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J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

BY RETURN MAIL!

SIX Warranted Italian Queens..............	$5 00
Fourteen Warranted Italian Queens..........	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

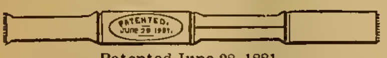
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.



Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

ROUGH ON RATS
TRADE MARK
DON'T
DIE IN THE HOUSE

Gone where the Woodbine Twineth.

Rats are smart, but "ROUGH ON RATS" beats them. Clears out Rats, Mice, Roaches, Water Bugs, Flies, Beetles, Moths, Ants, Mosquitoes, Bed-bugs, Insects, Potato Bugs, Sparrows, Skunks, Weasel, Gophers, Chipmunks, Moles, Musk Rats, Jack Rabbits, Squirrels. 15c. & 25c.

HEN LICE.

"ROUGH ON RATS" is a complete preventive and destroyer of Hen Lice. Mix a 25c. box of "ROUGH ON RATS" to a pail of whitewash, keep it well stirred up while applying. Whitewash the whole interior of the Hennery; inside and outside of the nests. The cure is radical and complete.

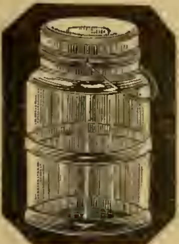
POTATO BUGS

For Potato Bugs, Insects on Vines, Shrubs, Trees, 1 pound or half the contents of a $1.00 box of "ROUGH ON RATS" (Agricultural Size) to be *thoroughly* mixed with one to two barrels of plaster, or what is better air slacked lime. Much depends upon thorough mixing, so as to completely distribute the poison. Sprinkle it on plants, trees or shrubs when damp or wet, and is quite effective when mixed with lime, dusted on without moisture While in its concentrated state it is the most active and strongest of all Bug Poisons; when mixed as above is comparatively harmless to animals or persons, in any quantity they would take. If preferred to use in liquid form, a tablespoonful of the full strength "ROUGH ON RATS" Powder, well shaken, in a keg of water and applied with a sprinkling pot, spray syringe or whisk broom, will be found very effective. Keep it well stirred up while using. Sold by all Druggists and Storekeepers. 15c., 25c. & $1.

E. S. WELLS, Chemist, Jersey City, N. J.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen, ...	**$1.60**
" 2 pounds " "	**2.00**
" 3 " " "	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen....................................	$0.80
6 Queens....................................	4.50
12 Queens....................................	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

ITALIAN Queens by return mail. Tested 90c.; Untested, 50c., or $5.50 per dozen.
26Atf **GEO. STUCKMAN, Nappanee, Ind.**

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin, Hartford, N.Y.
6W(3tm)40t

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS received many kind letters in regard to the excellency of his little book, **"The Production of Comb Honey;"** and it is with pleasure that he publishes the following "sample:"

ST. LOUIS, MO., April 16, 1887.

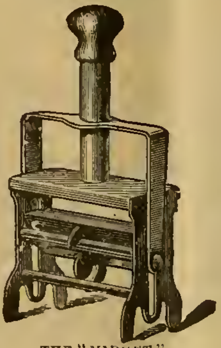
FRIEND HUTCHINSON.—Your little book has been forwarded to me from home, with the statement that "It has been read by every member of the family;" and, judging from the numerous underscored lines and bracketed passages, it was thoroughly appreciated.

I have been experimenting somewhat in the same direction, and while my experiments were by no means so thorough and exhaustive as yours, they make me an earnest supporter of the beliefs and practices laid down in your book, which I value above price, and can endorse every word of it. Sincerely yours, DWIGHT FURNESS.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
31Atf

SELF-INKING RUBBER-STAMP.



THE "MIDGET."

2,000

impressions for 10 cts. Will last a life-time. Everybody needs one. It prints indelibly Envelopes, Letter-heads, Postal Cards, Wrapping-paper, Bags, Sections, Crates, Cartons, Bedding, Robes, Clothing—everything. Your name, occupation and address, with the machine complete, sent free by mail, for $1.00 P. O. Money Order. Extra ½-oz. bottles of ink for 12c. in stamps.

Address,
GEO. T. HAMMOND,
Brockport,
Monroe Co., New York
26Etf

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts. England.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Aug. 31, 1887. No. 35.

Mr. T. W. Cowan visited Prof. A. J. Cook, at the Michigan Agricultural College, last week. This week he intends to visit Chicago and Hamilton, Ill., returning by the way of Medina, O., and Niagara Falls to Toronto, and attend the Honey Show there during the week ending Sept. 17, where he will meet Mr. Ivar S. Young, of Norway.

◆

The Premiums at the St. Joseph, Mo., Inter-State Exposition, to be held on Sept. 12 to 17, 1887, amount to $267. Mr. J. G. Graham, Agency, Mo., will send any one a premium list who may want it. The editor of the AMERICAN BEE JOURNAL will award the premiums.

◆

Mr. C. F. Muth, we are sorry to state, has been very sick for the last month, suffering from the effects of sunstroke which occurred at his farm. He is now on the way to recovery, but still unable to attend to business. Our readers will be very sorry to learn of his illness, and we know will be glad to hear of his complete restoration to health.

◆

The St. Louis Fair will open on Oct. 3, and last for 5 days. In the Apiarian Department, premiums are offered amounting to $147, besides diplomas. Premium lists may be obtained of the Secretary, Arthur Uhl, St. Louis, Mo.

◆

Upward and Onward go the market quotations for honey. In New York one-pound sections of white-comb honey are quoted at 18 cents (see page 556). The last quotation from that firm was "9 to 12c." (see page 428). This is a jump of 6 cents per pound. If bee-keepers will go slow in selling their honey, it will go up another 6 cents within a few weeks. "A word to the wise is sufficient."

◆

Several have requested our opinion of the Self-Inking Rubber Stamp, we have been advertising for Geo. T. Hammond. We have one in daily use, and desire nothing better. It is simply perfect.

The Bee-Moth.—On page 555, Mr. Crawley asks concerning the bee-moth, and remarks that they are very plenty. Several other correspondents say that they are very troublesome this season.

Many of the old-fogy sort speak of bees being "run out" by moths! Why not say that the weeds "run out" the corn? When a colony becomes weak (often from queenlessness), the hive will be taken possession of by moths, and then some persons run away with the idea that the bees were destroyed by the bee-moth. From an exchange we copy the following:

> The moth is the color of old wood, and the wings cross one another, turning up like the tail of a fowl. It may be seen lurking around hives in the evening, trying to gain admittance. Where fowls have the run of an apiary, they catch many of these moths on the wing. Combs in frames can be kept over the summer free from the depredations of the larvæ of the bee-moth, if they are suspended in the light and air, and are 3 or 4 inches apart. Moths love darkness and uncleanliness, and deposit their eggs in cracks and crevices about hives, where bees cannot gain access to them. Do not permit refuse comb to lie around the apiary or bee-house. I have put frames of combs containing their larvæ into a hive of Italian bees, and in half an hour could see the bees bringing them out. There is no need of any other moth-trap, for they are always baited and set. A handful of Italians will defend a hive.

Mrs. L. Harrison remarks as follows, in the *Prairie Farmer* for last week:

> The bee-moth is very busy now. I saw a couple of them this morning on an empty comb, standing by the side of a hive in the open air. They were of the color of old wood, and flew away as I took up the comb. I discovered a hive from which the bees had deserted, and found a few of the combs infested with the grubs of the moth. I stood them outside to let the chickens pick them out: it is the only way I know of for utilizing them. Half of the combs had grubs in them, and the remainder had none; the latter I left in the hive with double the distance between them that they formerly had, and so far they have not been infested. I will look around and find a spider to put with them, which will guard them safely.

◆

The Australasian *Bee Journal* is the name of a new monthly published by Hopkins, Hayr & Co., at Auckland, New Zealand, at 6s. ($1.50) a year. It contains 16 pages, and is ably edited by Dr. Isaac Hopkins, author of the "Australasian Bee Manual," an experienced apiarist of New Zealand. Three years ago Mr. Hopkins started a bee-paper there. It lived one year and then ceased to exist. Now, perhaps, the bee-keeping interests of Australasia will be able to support a good periodical. We hope so, and wish the new paper much success.

◆

California Honey will not be found this year in the Eastern markets. They have only a very small crop, and the new freight arrangements under the Inter-State law will not permit the California honey to compete, if they had any to send to the Eastern states.

The short crop of honey can now be made advantageous to those *few* who have some to sell. Double the prices of last year should be demanded, and may be obtained a few weeks later. Those who sell early will lose *the chance* for good, fair prices. On the whole, the present short crop may be considered to be "a blessing in disguise." Old fogies will suffer, but the pursuit will be "the gainer."

Feed the Bees if they need it. Many colonies are short of stores, where there are no fall flowers to give them nectar to gather. It will pay to feed the bees and thus preserve them for another season. The slipshod, old-fogy, know-it-all fellows will lose all or nearly all of their bees during the coming winter, and will be practically "out of the business" next spring. This will make a good demand for bees next season, and those who have them for sale will be "in clover."

In many places there are fall flowers, from which the bees are gathering fair quantities of honey; this will "bridge over the gap" and make fall feeding unnecessary. One danger threatens, however, if the rains should be too profuse, the honey may be thin and watery, and will sour in the hives, thereby causing disease and death to the bees in winter.

Use a good feeder—either a Shuck or a Heddon—its use is cleaner and more economical. If such cannot be had, then use an inverted jar or can, with cloth tied over the mouth, put it on the top of the frames, turning back the quilt, so that the bees can get at the food. Here is what Mrs. L. Harrison says about bee-food and open-vessel bee-feeders, in the *Prairie Farmer:*

> For winter stores none but the very best grades of sugar should be fed, but during warm weather, when the bees are continually on the wing, cheaper grades will answer the purpose, such as damp New Orleans sugar, which they can use without being made into syrup.
>
> Bees do not sip like flies, and if a bowl of syrup should be given them, it would soon be a withering mass of drowning bees. In order to prevent this, the syrup should be quite thin, and put into a vessel of chopped straw, or have thin muslin tied over it loosely, so it would settle down as fast as the syrup was taken out. It should be tied so that no bees could get under it, as they are very prying insects. This feed should be given them in such a way, that no bees from the outside can gain access to it, or robbing will be induced. Better feed at night, or early in the morning before bees are flying.

◆

Answering Letters of no possible interest or advantage to any one but the person sending the question should suggest to such persons the fact that we cannot spend all our time for their individual benefit.

One man writes us to go and get the price of wagon wheels; another wants us to sell a car-load of potatoes, saying that he cannot trust commission men; another wants to know if it will be safe to ship honey to Mr. ——; another wants us to find out if such a firm as —— are doing business on —— street, and asks us to go and examine the goods, and let them know if they can make money by selling them as agents; another wants us to investigate the methods of doing business adopted by Messrs. ——, and advise them whether it would pay for the writer to send them money, etc.

In order to answer these letters satisfactorily, we would have to travel from 6 to 10 miles, lose half a day's time, pay postage to answer each one—for in nine cases out of ten the query comes on a postal card. We are willing to accommodate all we can, but we must reserve some time, to attend to our legitimate business—or go hungry.

◆

Goldenrods, asters and Spanish-needles are now blooming, furnishing the bees with sweet nectar.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Management of Excessive Increase.

Query 462.—What would you do with increase, natural or artificial (I do not ask how to prevent "swarming"), if bees were slow sale—cheap?—F. K.

Work them for all they are worth.—H. D. CUTTING.

Use every means to prevent increase, and if necessary double up colonies.—J. P. H. BROWN.

Keep the increase, and produce honey; that is what we do, and it pays.—CHAS. DADANT & SON.

Use up the bees pretty well by contracting the brood-nest with a "vengeance;" then either kill the few remaining bees, or unite them.—W. Z HUTCHINSON.

I should prevent it as far as possible, and get honey instead.—A. J. COOK.

Bees may be united in the month of August to any extent desirable.—G. L. TINKER.

Double up colonies near the commencement of the clover bloom in June, in this locality.—G. M. DOOLITTLE.

Keep the increase, if you desire more colonies; but if not, reduce it back by a good, practical method, which is too long to describe in this place. I consider brevity of both questions and answers to constitute the soul and spice of the Query Department.—JAMES HEDDON.

One way is to "double up" in the spring, or perhaps it would be better to take brood from part before the harvest, and build up the others very strong; in other words, make as many colonies as you can extra strong, and let the others be mere nuclei.—C. C. MILLER.

I know of but three things to do with bees, viz: sell or give them away, kill them, or work them for surplus honey. Probably, if the above case was my own, I should keep them till times were better, or sell them by the pound. Bees by the pound are largely called for, and even at half the present prices, would prove a profitable business, unless too far from means of transportation.—J. E. POND.

If honey is to be found, keep the bees busy, in gathering it, by furnishing plenty of room for storing.—THE EDITOR.

Pure Italians vs. Hybrid Bees.

Query 463.—1. Which is considered the best to produce comb honey, pure Italians or a cross of the different races? 2. What cross would be best for producing comb honey, providing a cross of any kind was desirable?—M. S.

Pure Italians.—DADANT & SON.

I prefer the pure Italians.—J. P. H. BROWN.

A cross between Italians and Germans is superior to pure Italians, and is the cross that "I prefer."—W. Z. HUTCHINSON.

The crosses work the best. I am now trying a cross between Syrians and Carniolans. I hope much from it.—A. J. COOK.

I consider a wisely-directed cross between the best strain of Italian and German bees to be vastly superior comb-honey producers.—J. HEDDON.

1. Properly selected cross-bred bees are better than the Italians, to produce comb honey. 2. I prefer the Syrians crossed with Italians and Albinos.—G. L. TINKER.

1. The pure Italians. 2. Cross your Italians with other Italians 500 to 1,000 miles distant, and you will have *the best bee* in the world for either extracted or comb honey.—G. M. DOOLITTLE.

1. The pure Italians, in my own experience. 2. I should prefer an Italian queen crossed with a black drone. My experience, however, has been almost entirely with blacks and Italians.—J. E. POND.

I am experimenting in this line at present for this locality. I am not prepared to give a correct answer, and I do not think this can be answered to the satisfaction of the fraternity at large.—H. D. CUTTING.

I get a "best" imported Italian queen, and then I find that I have crosses enough with the surrounding black bees. It is a good deal like some one said about horse-feed: "The most desirable feed for horses is sawdust and oats, the less sawdust the better."—C. C. MILLER.

I like pure Italians the best, but Italians and the first crosses between the Italians and black bees make a good mixed apiary, and will give as good results as if the apiary contained all pure bees. If my apiary was run for honey alone, I would not go to the labor and expense of keeping my apiary full of pure bees. Breeding-stock must be kept pure, but it is expensive and laborious to keep the working-stock up to the pedigree mark. For a comb-honey apiary I would employ graded working-stock, infusing fresh Italian blood from year to year, to keep my stock from going down.—G. W. DEMAREE.

1. The Italian bees are no doubt the best, all things considered. 2. The only crossing we could recommend would be selecting the most desirable Italians in your own apiary, and then procuring *the best* from a distant apiarist, and them breed. This would be a wise selection.—THE EDITOR.

When to Extract Honey.

Query 464.—An extracting super is before me, filled with comb honey; when shall I extract? Why?—Shiloh.

As soon as you get ready.—J. P. H. BROWN.

When you are ready.—H. D. CUTTING.

1. When you get ready. 2. Because that is the proper thing to do.—G. M. DOOLITTLE.

If it is fit for use as comb honey, do not extract it at all, but sell it as it is. If not, extract it at once, as according to your description the honey must be ripe, and you may need the combs to replace upon the hive.—JAS. HEDDON.

I do not think that honey should be extracted until it is fully ripened. If wanted out of the comb, I know of no reason why it should not then be taken.—G. L. TINKER.

Now, because the weather is warm, and you may stand a chance of getting it filled again this season. Why wait?—W. Z. HUTCHINSON.

As soon as the crop is done. If you extract sooner, you will get some unripe honey, and, on the other hand, there is no use of putting off till to-morrow what you can do to-day.—DADANT & SON.

Extract at the time that best suits your own convenience, but unless you know just how to ripen honey, better let it stay in the hive till it is well ripened.—C. C. MILLER.

As soon as the bees commence to cap the honey; because that saves the time of uncapping, and if kept in a warm, dry room, the honey will be A No. 1, if from the right flowers.—A. J. COOK.

I do not understand this question. As asked, I should say, extract when most convenient, but not till the honey is well ripened.—J. E. POND.

Take the honey out at once; because it will never get better by keeping the "super before you," and the bees ought to have the combs back to fill them again.—G. W. DEMAREE.

If the honey is fully ripe, extract it as soon as possible. 2. Because it should be done while the weather is warm.—THE EDITOR.

Convention Notices.

CHANGE OF TIME.—The officers of the Cedar Valley Bee-Keepers' Association have postponed the time of the next meeting, on account of its clashing with the State bee-keepers' meeting. The meeting of the Cedar Valley Bee-Keepers' Association will be held at Waterloo, Iowa, on Sept. 20 and 21, 1887.

H. E. HUBBARD, *Sec.*, Laporte City, Iowa.

☞ The Iowa Bee-Keepers' Association will meet in the bee-keepers' tent on the State Fair Grounds at DesMoines, Iowa, on Sept. 7, 1887, at 10 a.m., and continue as long as may seem profitable. All are invited. A. J. NORRIS, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention in Chicago, Ills., on Wednesday, Thursday and Friday, November 16, 17 and 18, 1887. This date will occur during the *second week* of the Fat Stock Show, when excursion rates will be very low.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

Official Report to U. S. Entomologist.

Trembling Bees—Foul Brood.

N. W. M'LAIN.

THE "QUAKING DISEASE."

When bees are unable to obtain from ordinary sources a supply of saline and alkaline aliment, indispensable to their health and vigor and to the normal performance of their functions, they seek a supply from any available source. At such times they throng upon the milk-weed and mullein, which exude a salty sap. At such times large numbers of dead bees may be found at the foot of the mullein stalks, and thousands perish in the fields, and thousands more which reach their hives, being low in vitality and unable to free themselves from the meshes of the silken fiber in which legs and wings are bound, die in the hive or crawl forth to perish. The action of these starved and weakened bees when attempting to rise and fly or to rid themselves from the mesh of silky web, causes a peculiar nervous motion, and this is one manifestation of that which is called the "quaking disease," or the "nameless disease." If examined with a microscope, many are found entangled with the filaments from the plants, and their stomachs are entirely empty.

The honey from hives containing colonies so affected has a peculiar and very disagreeable taste and odor, somewhat like that of fermented honey indicating that some constituent essential in conserving it was lacking, and the cell-caps are dark, smooth, and greasy in appearance, and an offensive odor is emitted from the hive. An analysis of honey taken from such colonies, made by the Chemist of the Department, fails to reveal what element is lacking.

I have treated a number of apiaries so affected, using an application of strong brine, to which was added soda sufficient to make the alkaline taste faintly discernible. The hive should be opened, and each frame should be thoroughly dampened with spray from an atomizer, or the warm brine may be applied by using a sprinkler with very small holes in the rose, care being taken to use only enough to thoroughly dampen the bees and combs. The alighting-boards also should be thoroughly wet. The treatment should be applied morning and evening until the disorder disappears, which is usually in three or four days; a decided improvement being usually noticeable in twenty-four hours.* The honey should be extracted and diluted by adding the brine, and, after being nearly heated to the boiling-point for ten minutes, may be safely fed to bees. The apiaries were last winter supplied with this food alone. Both wintered well. Vessels containing brine should always be kept in or near the apiary. Pieces of burnt bone or rotten wood should be kept in the vessels of brine, and these vessels should be protected from the rain.

Another form of the so-called "quaking disease" appears to result from hereditary causes; for, if the queen be removed from the colony in which the disorder prevails, and a young, vigorous queen be substituted, in due time the disorder disappears. In very rare instances bees also gather poisonous nectar from plants, such as fox-glove or digitalis, the eating of which, it is reported, results in paralysis, another manifestation of the so-called "nameless disease."

THE FOUL BROOD DISEASE.

One of the most malignant diseases incident to bees is called the "foul brood" disease. What pleuro-pneumonia and hog-cholera are to the dairyman and swine-breeder, foul brood is to the apiarist. This disease is so stealthy and so virulent and so widely distributed, no locality in the United States being assured of immunity, that much apprehension is felt, and some of the States have enacted laws having for their object its control and extirpation. In many States the ravages of this scourge have resulted in ruinous losses to bee-keepers, and many on this account have been deterred from engaging in this profitable branch of husbandry.

During the past year I have given much attention to the study of this disease and the experiments for its prevention and cure. In making my investigations and experiments concerning the origin and nature of this disease and the means of its prevention and cure, I have collected a great amount of information from my own experience, and from the experience of many others. Concerning the origin of this disease and its means of communication, the evidence obtained is somewhat conflicting.

That the disease is actually contagious appears certain. That it is always communicated through the commonly accredited agencies is uncertain. That the disease is persistent and usually reproduces itself whenever the germs find the proper conditions for development is verified by experience. That the germs of this disease may be carried on the clothing of the apiarist and in and upon the bodies of bees from one apiary to another, and that they be borne by the wind from one hive to another in the same apiary, and that the disease-germs may be liberated from the decomposing bodies of other insects and scattered over other objects with which the bees come in contact, seem probable.

That the disease is destructive to bees as well as brood; that live pollen is the medium through which the contagion is most commonly and most rapidly spread; and that the disease yields readily to treatment which is simple, cheap, and easily applied, appear to be true, in support of which I submit the following detailed account of my experiments and observations:

On June 1, an apiarist having over 200 colonies in his apiary reported to me that he had discovered two cases of malignant foul-brood, and that unmistakable evidences of its presence were apparent in 25 other colonies. As I knew this man was without experience with this disease, I could not hope that he was mistaken. I knew that he had had unenviable opportunities, having been a bee-keeper for many years where this disease had been prevalent, and two years ago he himself had consigned 148 colonies to the flames as incurable. I at once gave him the following formula for a remedy:

To 3 pints of soft water add 1 pint of dairy salt. Use an earthen vessel. Raise the temperature to 90° F. Stir till the salt is thoroughly dissolved. Add 1 pint of soft water boiling hot, in which has been dissolved 4 table-spoonfuls bicarbonate of soda. Stir thoroughly while adding to the mixture sufficient honey or syrup to make it quite sweet, but not enough to perceptibly thicken. To ¼ of an ounce of pure salicylic acid (the crystal) add alcohol sufficient to thoroughly cut it (about 1 ounce), and add this to the mixture while still warm, and when thoroughly stirred leave standing for 2 or 3 hours, when it becomes settled and clear.

Treatment.—Shake the bees from the combs and extract the honey as clearly as possible. Then thoroughly atomize the combs, blowing a spray of the mixture over and into the cells, using a large atomizer throwing a copious spray; then return the combs to the bees. Combs having considerable quantities of pollen should be melted into wax and the refuse burned. If there is no honey to be obtained in the fields, feed syrup or the honey which has just been extracted. If syrup is used, add 1 ounce of the remedy to each quart of the syrup fed. If the honey is used, add 2½ ounces of the remedy to each quart of honey fed. The honey and syrup should be fed warm and the remedy thoroughly stirred in, and no more should be furnished than is consumed.

Give all the colonies in the apiary one copious application for the remedy, simply setting the frames apart so that they may be freely exposed to the spray. This treatment frequently reveals the presence of disease where it was not before possible to detect it. The quantity prescribed, applied by means of a large atomizer, is sufficient to treat 150 colonies. Continue the treatment by thoroughly and copiously spraying the diseased colonies at intervals of three days, simply setting the frames apart so as to direct the spray entirely over the combs and bees. In order to keep the bees from bringing in fresh pollen, burn old dry bones to an ash and pulverize in a mortar and sift through a fine wire-cloth sieve, and make a mixture of rye-flour and bone-flour, using three parts of rye-flour and one of bone-flour, adding enough of the syrup or medicated honey to make a thick paste. Spread this paste over part of one side of a disinfected comb, pressing it into the cells with a stiff brush or a thin honey-knife, and hang this in the hive next to the brood. Continue this treatment until a cure is effected. Keep sweetened brine at all times accessible to the bees, and continue the use of the rye and bone flour paste while the colonies are recuperating.

As a preventive apply the remedy in the form of a spray over the tops of the frames once every week until the disease has disappeared from the apiary.

On June 20, the apiarist above referred to, reported as follows:

" Number of colonies in the apiary on June 1, 210. Number of colonies apparently diseased, 25. Treatment applied as directed to the whole apiary. Number of colonies actually diseased, 64. The disease present in all stages of progress; in some cases just appearing, in some well developed; in others the contents of the hives were a black mass, the brood-combs nearly rotten, not an egg to be seen, and every cell of brood dead, and the stench from the hives nauseating. Have given the diseased colonies three applications, the first time extracting the honey. Effect of treatment instantaneous even upon apparently hopeless cases. Every colony save 5 is entirely free from any trace of disease, and these 5 are responding to treatment rapidly. I examined a colony to-day which two weeks ago had combs of brood almost rotten. No trace of the disease remains. I had 4,000 frames of extra comb. After hiving a few swarms, on some of them I found the disease present in every case. I then melted every one of these extra combs into wax, cleared and scalded and disinfected every hive, and hived the swarms on frames filled with comb-foundation. One of my neighbors, having an apiary of 60 colonies, had 38 cases of foul-brood, and before I was aware of it he had burned up a number of them. The remainder we treated as directed. His yard is now entirely free from disease. The cost of the remedy was just 10 cents. This prescription, if thoroughly applied according to your directions, will speedily and affectually cure the most hopeless and forlorn case of foul-brood."

It was afterwards found that the melting of the combs and scalding of the hives was not necessary.

After requesting this same apiarist to make some further tests, the nature of which will appear from what follows, on August 1 he made the following report:

"In 5 of my best colonies, which had shown no symptoms of disease, I placed frames of brood from diseased colonies, treating them as I did the diseased colonies, and all evidences of disease speedily disappeared. To 1 colony from which the bees had swarmed out, leaving less than half a pint of bees between the black, rotten combs and not an egg in the hive and every cell of uncapped brood dead, and not more than one bee hatching to every square-inch of brood, after thoroughly applying the remedy I introduced a queen just crawling from the cell. To-day I take pleasure in exhibiting this colony as one of the finest I own, lacking only a sufficient store of honey, and this without the addition to the odorous hive and rotten combs of a single bee, cell, or brood, or anything whatever to assist except the young queen.

"I extracted the honey from diseased colonies and treated the combs of such with the remedy as directed, and then exchanged hives and combs, giving the infested hives and combs to the healthy bees without cleansing or disinfecting a hive, and the diseased bees were given the hive and combs lately occupied by the healthy colonies. The contagion did not spread, and after two or three applications of the remedy all traces of it disappeared. I fed back the honey extracted from the diseased colonies for the bees to use in breeding, adding 2½ ounces of the remedy to each quart; and I also fed the mixture of bone-ash, rye-flour, and honey as a substitute for pollen by pressing the paste into the cells on one side of a comb, and this I placed next to the brood in each hive. I would not advise any one to feed this bone-flour and rye-flour paste unless they wish to rear a great many bees. I also fed the salt, alkali and acid mixture outside in the apiary, so that all the colonies could help themselves. No; I do not fear that any of the mixture will be stored for winter to get into the surplus apartment, as the bees seem determined to use all they can get of it in brood-rearing. All my hives are running over with bees ready for the fall honey harvest.

"As requested, I placed frames of sealed honey from diseased colonies in healthy colonies, and the disease was not communicated; but the frames from which the honey had been extracted, such as contained pollen, uniformly carried with them the contagion, unless the combs were first thoroughly sprayed with the antidote, and colonies gathering no pollen, or but little pollen, recovered much sooner than those gathering pollen in considerable quantities—that is to say, the more pollen, the more treatment required.

"In reply to your question asking by what means and in what manner the disease was communicated to my apiary, I answer: I at first thought that it had originated spontaneously, but later and more careful inquiry leads me to believe that I introduced it into my apiary through my own carelessness. But I and my neighbor (to whom reference was made in a former report) spent a day in some apiaries some distance from home in which the disease was raging. It would seem true that we brought the contagion home in our clothing. Other apiarists in our county who kept away from the contagion had no trouble. As to the progress of the disease in individual colonies, I would say that three or four weeks from the time the first cells of diseased brood are noticeable is sufficient to complete the ruin beyond redemption. I am surprised to hear that in some localities a colony may be affected for three or four months before ruin is complete. I have succeeded in rearing some queens from one of these diseased colonies, treated with the remedy without removing the comb-frames, and I will give them every possible chance to reproduce and propagate the disease. I have no fears of a return of the disease where the treatment has been thorough."

2. Number of colonies in the apiary, 14. Every colony nearly ruined by the disease in most malignant form. This apiary is located on the same ground where 145 colonies perished last year from the same cause. The whole yard had been swept clean, everything had been burned up, and entirely new stock procured. Twelve colonies in this apiary were treated by copious and thorough applications of the remedy, simply by setting the frames apart in the hives so that the spray could be directed over both sides. The frames containing brood were not removed from the hive, neither was the honey extracted. The treatment was applied every three or four days, and in three weeks the colonies were free from all appearance of disease. The other two colonies were treated with what is known as "the coffee cure," finely ground coffee being used as an antiseptic. The coffee failed to furnish any relief. Being dusted over and into the cells, it killed the little remaining unsealed brood. The salt, alkali, and acid remedy being applied, these 2 colonies also rallied, and "everything is all right now," was the last report.

3. Number of colonies, 100. Number apparently diseased, 48. A number of colonies had already been burned when the disease was reported. The remedy was thoroughly applied as directed, and in fifteen days the contagion had disappeared.

All the evidence so far obtained seems to prove that pollen is the medium through which the contagion is commonly introduced into the hive, and by which it is communicated to both bees and brood.

The bacteria, "the disease germs," having been lately deposited on the pollen (from what source is not positively known, but probably from the decomposing bodies of other insects) before the organisms are washed from the blossoms by the heat of the Sun, as they lie exposed to his rays without any element essential to their culture and growth, are carried and stored with the pollen in the cell, or pass into the digestive system along with the live pollen taken by the bees for their own nourishment. By this means these agents of destruction are introduced into the organism of the bees, and through the same medium are they introduced into the cells of the uncapped larvæ. The bacteria, having found a lodgment in the organism of the bee, may or may not cause speedy death. If the bees are young and vigorous they may resist the ravages of the infection, yielding only after the organism is riddled with the bacteria, but if the bees are old and low in vitality, the infection, if left to itself, brings speedy ruin. In the spring of the year I have dissected bees which had passed the winter in a colony in which this disease was present when the bees were put away in winter quarters the fall before. Their bodies had been completely honey-combed by bacteria.

The fact that if a diseased colony is removed from the infested combs and hive, and placed in an empty hive or in a hive with frames supplied with comb foundation, even if the new hive be at once placed on the old location and the old hive and infested combs be burned and the bees at once liberated, the disease commonly disappears, seems also to furnish additional proof that the contagion is usually carried into the hive in the pollen, and, further, that the "disease germs" do not long retain their virility if exposed to the rain and rays of the sun; otherwise the bees would continue to carry in the infection. The bees being compelled to consume the contents of their honey-sacs in building new combs, none of the germs remain to be regurgitated in the new cells; but by this practice the bees are left to the tender mercies of the bacteria, unless they be treated with an antidote. For obvious reasons the queens in such colonies should in any event be superseded as soon as possible. This method of treatment also contemplates the destruction or renovation of all hives and frames, the destruction of all brood, and the melting of all combs; a large percentage of the capital in honey-producing.

Another reason for believing that, except in rare cases, the disease is introduced by pollen is found in the fact that the larvæ rarely ever exhibit any symptoms of disease until about the time when the process of weaning begins, at which time the character of the food is changed from the glandular secretion, the pap, to the partially digested and undigested food. Live pollen is then added to the larval food, and with the bacteria in greater or less numbers; growth is arrested; death ensues; putrefication follows, and the soft pulp, of a grayish-brown color, settles to the lower side of the cell. As the mass dries up it becomes glutinous and stringy and reddish-brown in color and emits an offensive odor. Some of the larvæ will be partially capped, some completely capped and some left uncapped, the condition in which the brood is left depending, I believe, upon the virulence with which the disease attacks both bees and brood. The remedies prescribed appear to destroy the bacteria and cure the bees of the contagion and restore them to natural vigor. The worker bees then cleanse the hive of dead bees and brood and clean out and renovate the cells, and the colony resumes its normal condition.

That the contagion may sometimes be borne from hive to hive by the wind appears to be true, as it was observed in one of the apiaries which I treated for this disease during the past summer, that of a large number of diseased colonies in the apiary, with the exception of two colonies, all were located to the northeast of the colony in which the disease first appeared. The prevailing wind had been from the southwest.

That the disease-germs may be carried upon the clothing and hands appears probable, from the fact that in one neighborhood the disease appeared in only two apiaries, the owners of which had spent some time working among diseased colonies at some distance from home, while other apiarists in that locality who had kept away from the contagion had no trouble from foul-brood.

Aurora, ♁ Ill., Dec. 31, 1886.

For the American Bee Journal.

"Honey" vs. Extracted Honey.

MISS DEMA BENNETT.

The editor seems to be in favor of using the word "honey" in place of "extracted honey," so as "to have something that is entirely correct, and would not have to be explained." While I concede the first point, I cannot the last, for of all the words mentioned so far, I think that the word "honey" as applied to honey out of the comb, would require more explanation than any of the others.

Taking the BEE JOURNAL of Aug. 10, to illustrate, in the index we find "Basswood honey," "Honey and beeswax market," "Honey crop and prices," "Labels for honey," "No honey" and "Very little honey." On page 499, Mr. S. F. Newman writes that the honey crop is almost an entire failure; and the editor says: "Do not sell any honey until the end of September, etc." On page 503, Charles Walker writes of "paying taxes on bees, and no honey to do it with." On page 505, A. F. Stauffer says, "The surplus honey crop this season will be very short." On page 507, H. J. Rogers says, "I shall hold what honey I have for an advance." On page 510, in the advertisements, we see "Bees and honey," by Thomas G. Newman; How to produce the most honey in its best and most attractive condition." In all of the foregoing instances I do not think that the most expert honey-producer could tell whether it were intended to speak of either comb or extracted, namely, *combless* honey, or of both.

As I understand it, "honey" is a general term for the sweet fluid of the flowers which has been gathered by the bees, no matter whether ripe or unripe, liquid or granulated, comb or combless. The same as sugar is the name of crystallized sweets, as maple, cane, sorghum, beet, grape, etc.; or wheat, for the entire crop of that cereal, be it red or white, bald or bearded, spring or winter wheat.

You ask a groceryman if he keeps sugar for sale; he would say, "Yes, what kind do you wish?" If you asked for honey, he would answer in the same manner. I do not believe that there is a single apiarist or groceryman in the United States that would feel right to fill an order for "honey," with *extracted* honey, without inquiry, unless there had been previous dealings with the customer, and the manner of using the term explained.

Mr. J. B. Hains, of this place, who has seven different apiaries, tells me that out of seven different persons who called yesterday for honey, one asked for extracted, and the other six simply asked for honey, when wanting comb-honey.

I think a large majority of people use the word honey as applied to comb-honey.

I have often noticed persons passing by cases of honey in sections (in groceries), say: "How nice that honey looks; I must have some." But if it were jars of extracted, they would always put the descriptive prefix, as "extracted" or "strained," before the word honey.

It is easier to learn entirely new forms of speech, than to unlearn old ones, and substitute others in their places.

While nothing can be urged against the use of the word as the editor proposes, on the ground of incorrect language, still it can but be inexpedient to try and change the custom of ages.

Over 3,000 years ago Samson took *honey* in his hands, and went on eating and came to his father and mother, and he gave them and they did eat. Who doubts that it was comb-honey?

Bedford, ♁ O.

[Our correspondent labors under the impression that we have proposed a change of name for extracted honey. We have done nothing of the sort. We have simply said that if we must have a change, it should be an improvement and not merely a change. The whole matter is now referred to the Convention this fall, at Chicago—till then let it rest.—ED.]

Literary World.

Bees and Bee-Keeping in Poetry.

S. V. COLE.

Of the little folk of nature the bees are among the most interesting. They shine not only in the field of flowers, but in the field of letters. They supply the husbandman with food and the poet with simile and metaphor. This was especially true of the ancient poets. The Muse, in coming hither from the Golden Age of Saturn, started like the linden in Tennyson's "Amphion,"

> With all her bees behind her.

If we ask what has made the bees so interesting, we find, among other causes, that they are creatures with whom order seems to be the first law. The sluggard may go to the ant for lessons in the arts of perseverance, but his education is not complete until he has graduated from the bee in the science of method, economy, and the duties of a good citizen.

A bee makes wise plans and works for the common weal of the nation. And whatsoever it findeth to do it doeth with its might. Even when it uses its sting it puts its whole soul into it; for it is soldier as well as citizen. This double character has led the poets to compare the bee community to a state, in which every member has its special duty. But in this comparison the bees have the advantage. Our systems are the imperfect development of ages, whereas the bees received theirs perfect in the beginning; so that Virgil says they pass their lives beneath "unchangeable laws." Shakespeare calls them

> Creatures that, by a rule in nature, teach
> The art of order to a peopled kingdom.

Virgil has sung of the bees in fuller strains than any other poet, and has interwoven fact, theory, and legend in a most charming manner. The fourth book of the Georgics, the most perfect of his poems, is devoted to this theme. Here occurs the story of the shepherd Aristæus, who lost his bees and complained to his goddess-mother "in her chamber in the river-depth." She directs him to Proteus, the seer, from whom he learns the secret of replenishing his hives.

In Virgil, the bees are magnified types of humanity, just as the gods are magnified ones; and they go about their business therefore after the manner of men:

> Some seek supply of food
> And by agreement labor in the fields;
> Some in their narrow homes do lay the tear
> Of the narcissus and gluey gum
> From bark of trees, to be their hive's foundations.

The contrast between the aged and sedate bees and their more vigorous companions is very curious:

> The aged guard the towns, and build the combs,
> And mould the curious houses; 'tis their charge.
> But late at night the younger ones return
> Wing-weary home, their legs thick-smeared with thyme.

But more curious from a scientific point of view is the statement that bees do not bring forth their offspring, but gather them in their mouths from leaves and sweet plants, and in this way provide the "tiny freemen of their Rome." One observes that the Latin poet does not forget in his figures to bring the bee-commonwealth under Roman laws and customs. In another place he speaks of their "setting out on their airy march and pulling up the standards of the camp." Indeed, the Roman bees are very soldierly in their bearing, though not more so, perhaps, than their English relatives. As, in Shakespeare, some,

> like soldiers, armed in their stings,
> Make boot upon the summer's velvet buds,

so in Virgil,

> Some stand like sentinels before the gates.

At times the whole nation is aroused by an unfriendly challenge. Then it is they show themselves true Romans. Their hearts "throb with the spirit of war," says Virgil. A sound is heard "that mimics the fitful blasts of trumpets." The excited bees "flash their wings," "whet the points of their beaks," throng around the chief's pavilion, and—*marabile dictu!*—"with loud shouts defy the enemy!" Then comes the conflict, in which

> The leaders, midmost of the battle lines,
> Conspicuous for their wings exhibit how
> A mighty soul works in a narrow breast.

The analogy between bees and men is seldom carried more dangerously near the verge of the ridiculous than when a bee dies and the survivors bear out the lifeless corpse

> And form the mournful funeral train.

Time has somewhat dimmed this picture, but with its suggestion of the busts of dead ancestors and bygone accompaniments of a funeral, it must have been somewhat vivid in its day.

The intelligence of bees and other moral insects is greatly overrated, both by moralists and poets. As between bees and ants, the latter have quite as good a claim to our respect, if we may accept the conclusion of an eminent English authority, that they appear to possess some means of imparting information to one another—a sort of ant-language; whereas their honey-making rivals work more by a "rule in nature." Nevertheless bees are more poetical in their associations, and Virgil has invoked in their behalf his Lucretian pantheism, introducing it, however, with a cautious "they say." According to this doctrine, the fiery souls which animate their little bodies are emanations from the All-Soul which pervades and sustains the framework of the universe, and consequently a bee's history does not end with its funeral. Its immortal part, like the immortal part of a man, is re-absorbed into the original fountain, "and so there is no room for death," says Virgil, "but each flies up into the place of a star."

Bees, along with ants, birds, leaves, and hailstones, furnish the ancient poets with convenient similes where number was involved. Homer compares the Greeks gathering for battle to "swarms of closely-thronging bees, always issuing in fresh numbers from the hollow rock." Æneas, looking down on Carthage from a distance, saw the people at work on the new buildings like so many bees in summer. And Milton, whose mind was filled with classic forms, makes Satan's minions swarm to the council at Pandemonium,

> As bees
> In the springtime, when the sun with Taurus rides,
> Pour forth their populous youth about the hive
> In clusters.

In American poetry Emerson's "Humblebee" and Whittier's "Telling the Bees" are unlike anything the ancient Muse produced, and differ widely from each other, both in style and sentiment. The former contains the thoughts which arise in the mind of a philosopher as he calmly contemplates the

> Sailor of the atmosphere

making his tiny voyage from flower to flower; while the latter is a simple and very effective appeal to the affections. r. Whittier's poem is founded on the curious custom, introduced from England and said to have prevailed to some extent in the rural districts of our own country, of informing the bees, in the event of a death in the family, and draping the hives in black. This was supposed to be necessary to prevent the bees from flying away in search of a new home:

> Under the garden wall,
> Forward and back,
> Went drearily singing the chore-girl small,
> Draping each hive with a shred of black.
>
> . . . .
>
> And the song she was singing ever since
> In my ear sounds on:
> "Stay at home, pretty bees, fly not hence?
> Mistress Mary is dead and gone!"

As good order is so strikingly exhibited in "the government of the bees, for the bees, and by the bees," it seems appropriate that in Egyptian hieroglyphics the bee should represent royalty, and, in later times, become the symbol of the French Empire. In France the royal mantle and standard were thickly sown with golden bees, and in the tomb of Childeric, in 1653, there were discovered three hundred bees, made from the same precious metal.

For the American Bee Journal.

Separators—Fastening Foundation.

C. THEILMANN.

Mr. Dibbern takes me to task on page 265, because I have not as yet progressed so far as to use separators between sections, in order to obtain straight combs. I admit that I have never as yet used any separators for that purpose, but I have made many experiments to get straight and true combs built in the sections, without the use of objectionable machinery to the bees, and have for a number of years accomplished the desired results almost to perfection. Even with the small crop of basswood honey this year (I did not get any clover), my sections of honey are all built straight. It would have been a pleasing sight to any bee-keeper, to see about one hundred section-cases stored in my honey-house with all perfectly straight combs built in them—at least they were as straight as need be for any purpose; if 8 or more of these cases were piled on top of each other, the bee-spaces between the combs could be seen clear through the whole of them, if light was admitted in the lower one, and I doubt very much if Mr. D. could tell the difference between those which contained combs from last year, or those with new sections and new foundation, as I could not do so myself, and be sure of it. My cases are all one size, and hold 24 sections 4¼x4¼ by 2 inches, or 28 sections, 7 to the foot.

Arriving at this point of perfection, I would hardly know what to do with separators—in fact I would not thank a man for a load of them, for my own use. I know that this will not agree with some of our best authorities and practical bee-masters, but we must take into consideration that they have their bees in different hives and manage them in a different way from which I and some others do. It will not pay to throw aside hives and fixtures after once adopted, and get others which are no better; it is not the *hives* that make the honey.

There is Mr. Doolittle, one of our most practical apiarists, who cannot get along very well without separators. The readers will ask, why is that? Well, so far as known by reading, Mr. D. practices side-storing and therefore he cannot get along without them, else he would have a "nice mess" in his sections, and I have my doubts but what it will be a little mixed sometimes anyway, that is, pollen and honey.

I am mainly speaking to those who obtain their honey above the brood-nest; side-storing, or between the brood-nest will be most surely to have pollen in it; this is one part of bee-nature which we cannot prevent, therefore the proper place for nice surplus comb-honey is above the brood-nest, and to get it there in the best possible shape, and all of it that the bees can spare, without the use of a lot of machinery, has been my restless study. I have accomplished the securing of straight combs, and I have no trouble in getting my bees to work in the sections if they have anything to put there; on an average they do not store more honey in the brood-nest for winter and spring use, but I have to equalize it for them in the fall, which is not a very big job, as every frame fits every hive that I have, and as a rule the majority generally need no fitting.

FASTENING FOUNDATION IN SECTIONS

For the benefit of the readers, I will give my method of securing straight combs in the sections. In the first place I am very particular to do things right and at the right time, and if the readers take patience to read the following carefully, it will probably benefit them:

After having the cases ready and the sections folded, I put them near on an old cook-stove, which is under a shed—the sides are all open but one; near this stove I place an old kitchen-table, on which there are marks made by the "square" and pencil, whereby I cut the foundation, 6 to 8 sheets at a time, into the desired pieces for the sections. I prefer the Dadant "extra thin" foundation, 3¾x8½ inch sheets, for 4¼x4¼ sections, and 6 pieces out of each sheet. When I have the foundation ready I place another little table on a box or top of a hive, about 15 inches high and 18 inches long; on this I nail two thin strips to hold the sections in position while putting in the foundation. They are a little thinner than the sections and far enough apart to slip the section in between, and four at a time. This top table is to make it convenient to operate. The empty cases are placed on one side and the folded sections on the other side of the table, and the foundation in front. The stove is heated to the right point, and a protection-board placed between the stove and myself.

I stand between the table and board, and use a half-worn-out smooth table-knife, lay it on the hot stove, while at the same time I pick up a piece of foundation with the other hand, and hold it inside of the upside-down section on the little table, right above the hot knife, which is rubbing the wood below it, to get it hot, while at the same time is melting the end of the foundation so as to seal it to the wood, which is done by pressing it slightly in the center of the section; if rightly done, it will leave a mark of wax for every cell on the wood on each side of foundation alike, and this is just the point, as it will guide the bees to build the comb on each side alike, in all sections, and therefore build straight combs.

Do not overlook the main points, namely: the wood has to be fairly hot to receive the melting wax, else it will not stick securely; a thin knife is better than a thick or new one, as it becomes hot enough in one second, if the heat is right; it also works better on the foundation. There should be a space left between the foundation and sides of the sections of at least ⅛ of an inch, so that the foundation will hang free when in position. If it is too close, the bees will stick it to the sides and cause it to warp. To touch it with the hot knife will melt it to the desired distance, if it be too close.

I have tried a number of different foundation fasteners, but none suit me as well as the knife; it is utterly impossible to do as perfect work with them as I can with the knife; they all leave a strip of foundation on one side only, on which the bees get ahead the fastest nearly every time, and the result is bulged combs, and separators are surely needful.

I fill the cases as I go, and when a colony is ready (not before) I put one above the brood-nest with nothing between the frames and sections except a bee-space, but the hive should stand level from side to side. I can put in foundation best and quickest when the temperature is 70° to 80° above zero in the shed; at 60° the material is too cool, and at 90° to 95° the foundation gets too limber and crooks up, which means bad combs, and some of them will loosen because the foundation cannot be pressed close enough to the wood.

Heretofore, I was almost influenced by reading, to get some perforated honey-boards, but as long as my queens stay out of the sections as well as they have in the past, I will be better off without them, as they rarely deposit any eggs there, and everything that hinders the bees from free passage they do not fancy; the closer they are to the brood-nest, the better they like to store honey in the sections; but sections "between" or on the "side" of it, are very apt to get pollen in them.

Much has been said about bees traveling over finished sections, and thus damaging them; this is surely a great mistake; and one writer will say what another has written before him, without any investigation or knowledge of his own. My experience is that honey becomes better in every respect for quite a while after it is sealed over, even if it does get a little yellow by the bees nibbling on it with their mandibles; but not with their feet traveling on it.

Theilmanton, Minn.

For the American Bee Journal.

Causes of Drouth—Tile-Draining.

J. C. ARMSTRONG.

The article by Thos. E. Hill, on page 487, calls up a question on which there is a diversity of opinion. The article in a great measure, answers itself, when it says: "The fogs and moisture through these winds are driven upon the continent where drouth seldom prevails, etc." The ocean is the great reservoir which supplies the continents with moisture. This moisture as it is wafted upon the continents is carried to our mountain summits, where it is condensed, and falls in rain or snow. From there our vast rivers are formed which in turn form our great lakes. All these waters find their way to the ocean again and again, as they are thus wafted.

There are not many places on the earth's surface, which have not moisture enough in the atmosphere for vegetation, if it can only be condensed into rain. There are a few "rainless regions," which are rendered so by local causes, but these are few. At present all our sloughs and ponds are dried up. The beds of our smaller streams are dry, and our larger ones are greatly diminished. If these are the source of our water supply, we are done. The whole Mississippi valley will soon be a barren waste, and the whole continent as well. In a few months we shall see the ground saturated with water; our streams overflowing, and our rivers sweeping on in vast floods to the ocean. Where do all these waters come from? From the ocean. As a general rule there is a greater rainfall near the ocean than in the interior of the continent. For the same reason there is more along our great rivers and lakes. Yet nearly all these regions are visited by drouths.

At the present time, Michigan is suffering as severely as Iowa, though surrounded by the great lakes. Minnesota is all dotted over with lakes, yet the drouth is there. I have seen as great drouth nearly 40 years ago in the vicinity of Lake Erie, when perhaps there was not a tile in America. Undoubtedly all our little streams, lakelets and sloughs have some influence in producing rain, but they are as a drop in the bucket, compared with the great ocean. Perhaps they are a hundred-fold more potent in breeding malaria, than in producing rain.

It is a well-known fact to all who have studied the effects and had the experience with under-drainage, that such land is better prepared to stand a protracted drouth than land not so drained. While it carries off all surplus water which would be injurious to plant growth, it pulverizes the soil and renders it more porous, thus increasing its capacity to absorb moisture in the form of dews. Moisture is drawn up from the wet soil below the drain, by the same force that water is drawn to wet a whole sponge when only a part of it is dipped in water.

Another reason why an under-drained soil can stand drouth better is the fact, that the surface water being removed, the roots run deeper into the earth where more permanent moisture exists. When the surface soil is saturated with water, the roots of plants creep along the surface, finding all the moisture there they need. As dry weather comes on, the surface moisture is evaporated, the surface becomes baked, and vegetation withers and dies.

We have had a practical illustration of this principle in this section during the last two years. We are in our second season of drouth in this region. When we planted our corn last year, the ground was wet, and it remained so for some considerable time, till it had made considerable growth. As the season advanced, the ground dried out and the roots were left in dry ground, and the crop wilted and made a very feeble growth, and we did not have half a crop. This season it was different. The ground was dry when it was planted. Many predicted that if we had another dry season we would not have any corn. We have had our second season of drouth and our corn, on an average, I believe, is fifty per cent better than last year.

As to under-drainage being the cause of greater floods than formerly, is a mooted question. The evidence of early settlers goes to show that floods were as great in early days as now. In early days, when the river bottoms were covered with timber, and the streams and water-courses were filled with rubbish, the effect was to retard the outflow of water, the streams were longer in rising, and floods were of longer duration. As the forests were cleared away and the country was brought under cultivation, the rubbish in streams was cleared away; outlets for the surplus water were formed by open ditches by which the outflow of water was hastened. The effect has been to produce a quicker rise in creeks and rivers, and higher flood-marks.

If all level and table lands were tile-drained to the depth of three feet or more, the soil to that depth, would soon be rendered open and porous and would require a heavy rain to saturate the soil to that depth, before it would begin to give off excess of water to the drain; and the water of saturation would be given off gradually. The effect of tile-draining, therefore, is to hold back the water rather than precipitate it at once into open channels. Open ditches and small streams which have been cleaned of logo-brush and leaves, allowing the water to run off without any hindrance, increase the height of floods. Not so with tile-drains.

It is an indisputable fact that storms and cyclones are more numerous and more severe than formerly; but it is not so apparent that they are produced by drouth, or that drouth and cyclones go together. Some ascribe them to one cause, and some to another. Some ascribe them to electrical disturbances, caused by railroad tracks and telegraph wires; others ascribe them to planetary influences. Perhaps we shall never know their causes. Until it can be shown beyond a reasonable doubt that tile-draining is the cause of drouths and cyclones, I think it would not be wise to discontinue a work which produces such bountiful returns for the money invested.

Bromley,⊙Iowa.

For the American Bee Journal.

N. W. Ill. and S. W. Wis. Convention.

The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association met for their fall meeting at the residence of O. J. Cummings, in Guilford, Ill., on Aug. 18, 1887; President Highbarger in the chair, and about 20 members present.

There was about 65 lbs. of surplus honey reported, but the main question was, what, how and when to feed bees for winter.

Mr. Morse said that he should feed in the ratio of 10 lbs. of sugar to 3 lbs. of water, and one heaping tea-spoonful of tartaric acid.

Mr. Highbarger said that his feed would be 6 parts of sugar and 1 part of water and extracted honey; that he should use cigar boxes for feeders, cutting the cover so as to be ½ inch small in the inside of the box, and cut through it, using the cover to float on the feed, so that the bees could take the feed and not get into it. He would place these boxes on the frames at night.

Mr. Taylor exhibited a feeder to cover the whole top of an 8-frame hive.

Some of our best bee-keepers were appointed to read essays at the annual meeting next January, and preparations were made to make the annual meeting the best we have ever had. The Association tendered a vote of thanks to Mr. and Mrs. Cummings, for their kindness and hospitality.

D. A. Fuller, *Sec.*

For the American Bee Journal

The Season in Massachusetts, etc.

ALLEN LATHAM.

The season here is as everywhere else, poor. I have not one decent box of honey; to be sure I have several hundred partly filled, but not in a salable condition. We are now having heavy rains, and if we have suitable weather in September, asters and goldenrod, etc., will bear lots of honey.

Clover yielded honey for about two weeks, and since then bees have barely gotten enough honey for breeding. But they have swarmed—swarmed where there was no honey to be gathered. Swarms that I hived in June are now swarming. I lay it to hot weather, and having nothing to do. Unless we do have honey later, bees here will have to be fed, and all bees that have gone to the woods will starve. I hope for better luck next season.

EXTRACTED HONEY.

In respect to the discussion on "extracted honey," I would say, why carry it on any further? Does the English language furnish a better word than "extracted?" I think not. That word expresses the right meaning. What if one or two unobserving people get the idea that it means "extract of honey?" It is their own fault, and one twenty-five-millionth part of the United States ought not to be of great weight. If the word "extracted" does not suit, and cannot, why try to find another word when there is none? Take Mr. Demaree's advice and say "honey in the comb," or honey "out of the comb," and the stupidest person in the country, if he has the least bit of reasoning, can see what is meant. I have been disgusted to see some of the simple, silly ideas expressed by some correspondents on this subject.

Lancaster,⊙Mass., Aug. 22, 1887.

Home Farm.

The Hive for Maine.

J. E. POND.

Some years ago I wrote an article in praise of the Langstroth hive and frame, which was criticised quite severely, as recommending a frame too shallow for down-east winters. The criticisms were all theoretical, and based upon the idea that deep frames were needed in Maine, and that a frame as shallow as the Langstroth, would prove disastrous in cold weather.

As time passes on, I find a change in the opinions of bee keepers of experience, and that now they are rapidly falling into line with my own views.

Mr. J. B. Mason, one of the ablest apiarists in the country, combated me quite strongly for a time, but after a series of experiments, came over to my side of the question, and came to stay, too. He has tested matters thoroughly, and while he thinks the point is not right in theory, he knows the practice proves it to be right in fact.

Mr. Isaac Hutchins, also, has tested the matter, and he too is now a champion of the Langstroth frame.

The fact is, and for years has been, that bee-keepers have been hampered with certain opinions that have been handed down from generation to generation, and instead of breaking out a new road for themselves, have stuck to the old beaten track, without regard to whether they could find an easier road, or a shorter cut, or not.

Bee-keeping is a science, and it is a progressive science, too; and he only can bring about the best results, who works in the best and most economical way. I do not wish to be considered as an advocate of new things because they are new, but I do advocate, most strenuously, the idea, that by carefully-conducted experiments we can bring about results far superior to those now gained. I do not advise either that all should experiment. Let those investigate who have the time and inclination; but let those who have not the time keep their ears and eyes open, ready to take advantage of new points that prove valuable, rather than to repudiate them because they are new; still I advise all to go slow, and only take up new things when the proofs are offered that they are better than the old.

Foxboro,⊶ Mass.

Local Convention Directory.

1887. *Time and place of Meeting.*

Sept. 6, 7.—Cedar Valley, at Waterloo, Iowa.
H. E. Hubbard, Sec., La Porte City, Iowa.

Sept. 7.—Iowa State, at Des Moines, Iowa.
A. J. Norris, Cedar Falls, Iowa.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Insect that Punctures Grapes.—P. M. Puhl, Maumee,⊶O., on Aug. 9, 1887, asks the following:

Will Prof. Cook please let the bee-keepers know, through the American Bee Journal, what insect it is that drills a small hole in the grapes when they are ripe? That seems to be the greatest trouble here.

[I shall be very glad to answer, if Mr. Puhl will send me specimens. Wasps and several kinds of birds are known to injure grapes. I shall be very glad to receive specimens of the insects, or of any others.

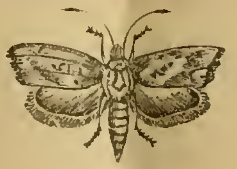
I hope that bee-keepers will send me specimens of insects of all kinds, in strong tin or wooden boxes. The postage is very little. I am specially desirous of getting wild bees from all parts of the country.—A. J. Cook.]

Fearful Drouth—Taking Bee-Papers.—I. N. Rogers, Jackson,♀Mich., on Aug. 10, 1887, says:

This county (Jackson) will not overstock the honey market this year; in fact, the present indications are that bees will have to be fed for winter. We are having the worst drouth, in its effect, that we have had for 30 years. White clover and Alsike seem to be completely wiped out. We have had no rain since July 4. A piece of buckwheat, which I had previously sowed, got the benefit of this rain, and, being drilled in deeply, has continued to grow nicely and is now in bloom. The bees are working on it in great numbers every day until noon. Two bee-men near me have lost several colonies lately, by starvation. One of these men I once tried to persaude to take the American Bee Journal. "No," said he, "I prefer my own experience to that of others." The other, when approached on the same subject said, "What! a bee-paper? My son-in-law had three bee-books and lost all the bees he had last winter! Only look at that, now!" They both lose heavily every winter. I have taken off but 250 lbs. of comb honey so far this year. About 150 lbs. more that was nearly ready to cap when the honey harvest closed abruptly, I took off, but have been obliged to feed back to the bees.

The Bee Moth.—Wm. Crawley, Redwood Falls,⊙Minn., writes thus:

I send two specimens of moth found in my apiary. Which is the one that lays the eggs in the hive that produces the miller? Please give a description of the bee moth in the next Bee Journal, and you will oblige many readers. They are quite troublesome in my apiary. I find worms in my strongest colonies, and the weak ones I have to watch closely, and clean them out. How long does it take them to mature after the eggs are laid? The best way I have discovered to destroy moths is to put a lamp with the shade off, in a pail with a little water in the bottom and leave it all night in the apiary. They will go for the light, get scorched and drown. I found scores of the large dark ones on top of the hives under the shade-boards in the morning. My apiary is in the timber, which I think makes them worse than they are in the open country.



The Bee Moth—flying.

[The longer one—the female lays the eggs. The moth spins its cocoons in a crevice of the hive, or in clusters in the comb. In these they become pupæ, and in 12 to 14 days they hatch into moths. In winter they take much longer. The plan you describe is a very good one to destroy them. Further description and remedies may be found on page 547.—Ed.]

Poor Season in Ohio, etc.—T. F. Kinsel, Shiloh,♂O., on Aug. 17, 1887, writes:

Bee-keepers here, to say the least, are disappointed in surplus honey. Those who had their "eggs all in one basket," will spread honey thin, and possibly wear their "old coat" another year. Bees would not even draw out foundation, but required combs, and that too, for extracting, to work with vigor. They would fill drawn combs in sections, for comb-honey. Not more than this could I accomplish. My surplus will be 10 lbs. per colony, and may be 12 lbs., spring count—about half comb-honey. Colonies are strong now. Lately a gentleman told me he once caught a swarm in the woods, but it died. Naturally the inquiry was made as to the cause. He said they died in "the winter." I supposed it was "pollen" or want of "hibernation;" but he said the "king" wasn't with them, he guessed. It was all as plain as day then! No better names, Mr. Editor, than have been suggested, viz: "honey" and "comb-honey," are needed. Stick to them.

Extracted-Honey Discussion.—J. M. Lyman, Toledo,⊶O., on Aug. 18, 1885, writes as follows:

The long "extraction" discussion should have culminated long ago. In this case the virtue of reform has become utterly vitiated, and an unpleasant odor meets us, as we open the pages of the Bee Journal. Do give us a *rest!* The only explanation of extracted honey I ever had to make to a honey-consumer was, the method of extraction, and so long as buyers of honey know full well what extracted honey is, why introduce another term, and the consequent labor of another educational process?

[The "rest" you so much desire will be granted, and now "let us be happy."—Ed.]

Fall Honey-Yield—Bee-House.—Rev. S. Roese, Maiden Rock,⊶Wis., on Aug. 22, 1887, writes:

At last the long-looked-for rain has come. We were suffering for the want of it very much, but our bees are now just booming on goldenrod and other fall flowers. If frost holds off a while longer, our fall honey-yield will be better than that of the past summer. Last week I had 2 swarms, something unusual for this season of the year, but I gave them a full outfit, taking one frame of sealed honey from each colony until they had enough, and unsealed brood besides. I look for more swarms to issue. The most of my bees not swarming this season proved to be my good luck, for all of my colonies are now very strong, and I have taken in all, from 35 colonies, 1,100 pounds of extracted, and 140 pounds of comb honey in one-pound sections. All have stores enough for winter. It seems that those colonies that swarmed in June and July, almost swarmed away, and some are queenless. I have 2 queenless colonies, I think, for they have no young brood, and I gave them queen-cells but they tore them down; then I gave them unsealed brood, and they started queen-cells, and had them sealed over, and then tore them down.

I have completed a bee-house with the expectation of wintering my bees more safely next winter. It is 12x18 feet, with stone foundation, sheeted on the outside with inch boards; next is a layer of bricks placed on the edge. The scantlings used are 8 inches wide and 2 inches thick. It is sheeted inside with matched flooring, floor and ceiling the same, with one ventilator underground 20 feet long in extent, with an 8-inch opening coming up through the floor, and one ventilator extending out at the roof of the house, the same size. On top of the upper floor is a covering of 2 feet of sawdust; also the space between the brick and inside sheeting (6 inches) is filled with the same. Besides, I am going to bank it outside about 4 feet high, or more.

Good Fall Crop Expected.—Fred. Bott, Wabasha,⊸Minn., on Aug. 22, 1887, says:

I receive the BEE JOURNAL every Saturday afternoon, and am very well pleased with it. I think I am doing well for a one-horse bee-keeper. I put out twelve colonies in the spring, increased them to 15 colonies by natural swarming, and obtained about 800 pounds of comb-honey and 100 pounds of extracted, so far. There is a good prospect for a good fall crop.

Very Poor Honey Crop.—P. Sunday, Goodell's,⊸Mich., on Aug. 18, 1887, says:

The honey crop was very poor in this part of the state, on account of the long drouth. Bees gathered but very little honey from basswood and clover. We are having a nice rain now, which might help buckwheat and autumn flowers some, and produce enough honey for bees to winter on.

Crop nearly a Failure.—N. Sunnes, Elliott,⊸Ill., on Aug. 10, 1887, writes:

The honey crop was nearly a failure here this year. From 30 colonies, spring count, I have taken only 350 pounds of extracted and 200 pounds of comb-honey. I worked 12 of my strongest colonies for comb honey; 8 of them swarmed once. I worked them on the Heddon plan for both comb and extracted honey, for in good honey seasons it is almost impossible to prevent swarming without extracting the honey before it is capped over. Ten of the weakest colonies gathered scarcely enough to winter on. Fall flowers are very scarce, owing to the dry weather we have had. I intend to move my bees about 5 miles to where there is usually an abundance of Spanish-needles, so I expect a little fall honey yet.

Pollen in Combs—Bald-Headed Brood.—J. H. Wellington, Saginaw, ⊙Mich., on Aug. 19, 1887, writes:

I will give my way of managing combs filled with much pollen: Extract the honey from the combs, and put them into water for half an hour or longer. If dry, they need more time. Put the combs with water into the hive of a strong colony, and inside of 24 hours the combs will be nearly as clean as new combs. The pollen can be extracted when dissolved in water. Bald-headed brood I think is caused by either a lack of comb-making bees in the hive, or a lack of honey to make comb from. Old bees with a new queen will very often leave bald-headed brood. A queen in a colony that builds up very fast with few workers, will have bald-headed brood. If the honey-flow stops suddenly, when queens are laying bountifully, colonies that have put nearly all their honey into the boxes will leave brood partly unsealed.

Good Increase—Painting Hives.—A. C. Waldron, Buffalo,⊙Minn., on Aug. 24, 1887, says:

I have had a good increase of bees but very little surplus. This is my first year, and I have increased my apiary from 2 colonies to 8, by purchasing 3 small nuclei, and then building up. The BEE JOURNAL has been a great help to me, as well as "Bees and Honey." I have some new hives with bees in them; will it injure the bees to paint those hives now?

[You can paint all but the alighting-boards, at any time, and those can be done after dark, and will dry over night. It will not injure or disturb the bees in the least.—ED.]

Honey-House.—S. J. Youngman,⊙ Mich., writes:

I am about to build a house for the exclusive use of extracting honey. Any suggestions from practical bee-keepers would be thankfully received, especially as to the arrangement of the *door* and *windows*.

Pure Honey, Poor Season, etc.—A. Pinkerton, Marshalltown,⊙Iowa, on Aug. 23, 1887, writes:

I had 150 colonies when the honey season should commence, and I made preparations for a large crop of honey. I built a shop to work in, made a lot of new hives, and bought sections enough to hold 10,000 lbs. of honey; I also made cases to hold the sections, and procured plenty of comb foundation. But about the time everything was ready, I decided to save all my fixtures for another season. I had 7 swarms and no honey. A few of my colonies have honey enough to winter on now. I do not think we need any new name for extracted honey this season, but if we did I would be satisfied to call it "pure honey." I think if I should send an order of 500 lbs. of honey, I would say, 500 lbs. of comb-honey, or 500 lbs. of honey in 1 or 2 pound sections. If I wanted extracted honey, I would say, 500 lbs. of "pure honey" in jars, pails or kegs. But I do not care much what it is called, if we only had plenty of it.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

CHICAGO.

HONEY.—We quote: In 1-lb. sections, 15@18c The color makes the difference in price.
BEESWAX.—22@24c. R. A. BURNETT.
Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New comb is very scarce, and quoted at 17@18c. per lb.
BEESWAX.—23c.
Aug. 17. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.: 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.
BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 20@22c.; 2-lb. sections, 18@20c. Short crop indicated.
BEESWAX.—25 cts. per lb.
Aug. 25. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 5@5½c.; amber colored and candied, 4@4¾c.—White to extra white comb, 12@14c.; amber, 8@11c. Receipts light.
BEESWAX.—17@20c.
Aug. 20. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4⅛@5c.; amber and candied, 4¼@4⅝c. Receipts light; poor crop.
BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-lbs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 16@18c.; the same in 2-lbs., 13@14c.; fair to good 1-lbs., 13@15c., and 2-lbs., 10@12c. Extracted white clover, in kegs and barrels, 7@8c.
BEESWAX.—21@22c.
McCAUL & HILDRETH BROS.,
Aug. 24. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 15c.; dark 2-lbs., 12@13c. choice white 1-lbs., 18c.; dark 1-lbs., 13@14c. Calif. white 2-lbs., 13 to 15c. Extracted, new choice white, 8@10c.; dark, 5@6c; Calif. white, 8c.; amber, 6@7c.
BEESWAX.—20 to 22c.
Aug. 25. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c., 2-lbs., 15@16c.; dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.
BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.
BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Comb honey has been sold out perhaps better than ever before at this time, only remnants of dark honey being left. Choice white would readily bring 15c. in a jobbing way.
BEESWAX.—Fair demand,—20@22c. per lb. for good to choice yellow.
Aug. 19. C.F. MUTH & SON, Freeman & Central Av.

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As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

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HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
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Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

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TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
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THE Highest Market Price will be paid for COMB HONEY. Before disposing of your Crop write to

H. L. NICOL & CO.,
KANSAS CITY, MO.,
Proprietors of "Red Cross" Brand Honey.
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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Sept. 7, 1887. No. 36.

Mr. C. F. Muth is convalescing, we are happy to state.

We are Glad to be able to announce that Mr. James Heddon is recovering from his recent illness.

Mr. Allen Pringle is very ill, and the chances of his recovery are very slight. We shall hope, however, for a restoration to health—for as long as there is life there is hope.

Mr. Ivar S. Young, editor of the bee-paper of Norway, expected to land in New York last Friday. He expects to be at the Toronto Exhibition during the week ending Sept. 17.

We are Sorry to learn that Mr. McPherson, one of the editors of the *Canadian Bee Journal*, lost his young child on the 19th ult. We condole with our young friend in his affliction.

Laying Workers are often developed in queenless colonies, if such colonies are not supplied with eggs or brood from which to rear a queen. Look out for such a state of affairs, and see that these pests—laying workers—are not allowed to ruin queenless colonies.

Stings.—An exchange remarks that old bee-keepers rarely trouble themselves with the bee-sting remedies, but amateurs, and those in whom the flesh swells when stung near the eyes, often wish for something that will reduce the swelling and pain. The best remedy known to the writer is a tincture of plantain, made by pouring alcohol over the freshly-gathered leaves, and allowing it to remain until it turns black, when it is poured off and bottled. If this remedy is applied immediately after the wound is given, the swelling and pain will be scarcely perceptible. If the person is severely stung, a few drops of the tincture can be taken internally.

Mr. T. W. Cowan's Visit.—On Monday, Aug. 29, Mr. Cowan left Prof. Cook and made a short call upon Mr. James Heddon. They spent a few hours very pleasantly, and on Tuesday Mr. Cowan came to Chicago, without previous notice. We had agreed to notify several of the apiarists near Chicago, as soon as we knew when he was coming, but as the visit was unannounced, there was no time to get even one of them here before he was "gone" again. We spent 11 hours in pleasant social intercourse, bee-talk and in showing him around the city, taking a five-hour carriage drive on the principal thoroughfares, boulevards and parks.

To us Mr. Cowan was no stranger—though he was such to every other person in the United States of America. In July 1879, we spent an afternoon and evening at his residence at Horsham, near London, England, in company with C. J. H. Gravenhorst, editor of the *Deutsche Bienen-Zeitung*; J. Dennler, editor of the *Bienen-Zuechter*, Col. Pierson, of Strassburg, and a large company of prominent British bee-keepers. As a memento of that occasion we have one of the medals of the British Bee-Keepers' Association, which was there presented to us in honor of our visit.

Mrs. Cowan remained at Prof. Cook's residence on account of poor health, and after visiting Ch. Dadant & Son, Mr. Cowan returns to the Michigan Agricultural College, delivers an address to Prof. Cook's class, and then goes to Medina, O., thence to Niagara Falls and Toronto, as announced last week.

Mr. Cowan desired us to thank the many apiarists who had invited him to give them a call. He would be delighted to see them all, but time forbids, as he must be in London early next month.

A Reporter for the Poughkeepsie *Enterprise*, has visited the "bee-farm" of Mr. G. H. Knickerbocker at Pine Plains, N. Y., and has written up nearly a column descriptive of it for his paper. Mr. Silas M. Locke is the manager of the apiary. Speaking of these gentlemen the *Enterprise* remarks as follows:

> They understand the subject in all its details, are courteous gentlemen, and certainly merit the popularity and success that are connected with "The Knickerbocker Bee-Farm."

New Invention.—The Omaha *Herald* says that its representative has visited an apiarist of Harrison county, Iowa, who has made an invention for the use of bee-keepers. He says:

> It is an automatic, self-lubricating machine for fastening comb-foundation into section-boxes for surplus honey, as used by bee-keepers. The task heretofore has been a slow and tedious one, owing to the want of a machine that would do the work expeditiously. This will fully supply that want. It will do the work of any ten machines ever invented, in a given time. Though simply constructed, it is a marvel of ingenuity, and all apiarists cannot fail to appreciate it upon examination. A patent will be obtained and the manufacturing of them commenced at once.

Sweet Clover has endured the extreme heat well, and now is in full bloom. Its roots go to a great depth and get moisture when other plants, not so deep-rooted, die for want of it.

Nebraska.—The bee-keepers of Nebraska are awake, and working hard to make the pursuit a success in that State. Mr. H. N. Patterson, Secretary of the Nebraska State Bee-Keepers' Association, has issued the following "Notice to Bee-Keepers:"

> The Board of Agriculture of Nebraska, have set apart ample and suitable space for the display of bees and honey at the State Fair, and now it is to the interest of Nebr. bee-keepers to improve this opportunity and show the people that this is a honey country, and that we need not admit any shipping of honey into our state.
>
> Shall we not now awake and meet with our products—the sweetest of the sweets—the pressure of commerce and thus prove ourselves up with the day?
>
> The Superintendent of the apiary department, Mr. E. W. Whitcomb, of Friend, Nebraska, would be glad to have you and also a sample of your products at the State Fair.
>
> A meeting of the State Bee-Keepers' Association will also be held on Wednesday and Thursday evenings, Sept. 14 and 15, during the Fair, in the Botanical Lecture-Room of the State University. This room is on the first floor of the chemical building, east of the main building, south entrance. All are invited to attend these meetings. They will be free and interesting.

The action of the Nebraska Bee-Keepers' Association in endeavoring to develop the honey-flora of that State is very praiseworthy, and will bring the apiarists some speedy and lucrative returns.

Drouth in England.—The very severe drouth, which prevailed all over the Northwestern States during June and July, now appears to be prevailing in England. The *British Bee Journal* for Aug. 18, 1887, remarks as follows:

> The whole country, as far as the eye can reach in every direction, has the appearance of parched stubble-fields from which the corn has been already garnered. Our meteorologists tell us that up to the present time the rainfall of the year has been twenty inches at least. Want of water is causing great distress in many districts, and the springs are so low that heavy rainfalls will be required to replenish them. Fruit, still unripe, is falling from the trees, which, on heavy soils, are themselves dying, owing to the cracked surface admitting to the roots the atmospheric air.

Queen-Bees to Canada.—A correspondent writes us a complaint, that the postmaster at Detroit has returned two packages (containing queen-bees) for insufficient postage when they were to be sent to Canada, and stamps had been placed upon them, the same as required for the U. S. postage. Our correspondent is at fault, and as others may be misinformed we make this explanation. Queen-bees have to be sent to Canada as merchandise, and according to the law, it requires 10 cents postage on every package weighing 8 ounces or less. As the postage must be prepaid, the postmaster at Detroit was required to return them, or retain them and let them die.

The Apiculturist for September came a few days ahead of time. Under the able management of Mr. Alley it improves each month. So far as valuable matter is concerned, it is one of our best apicultural periodicals. It is well printed. On the contrary, one of the new bee-papers of the West comes to us this week with pages transposed and otherwise disfigured. So far as printing is concerned, it is away behind the age.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Colonies without Eggs or Brood.

Query 465.—Should not my bees have eggs or brood at this time of the year, especially if I have fed them regularly for a week?—Missouri, Aug. 17, 1887.

Yes.—J. P. H. BROWN.

Yes.—W. Z. HUTCHINSON.

Yes; or they will have brood soon, if enough food is given.—DADANT & SON.

Yes, if you have fed them a pint of honey or syrup a day. A few spoonfuls has no effect to stimulate breeding.—G. L. TINKER.

I should prefer eggs and brood at this time; but feeding will not produce them. Hunt up the queen.—H. D. CUTTING.

My bees would be likely to, under such circumstances, but I should have no fears at all for the future welfare of the colonies, if they had not.—JAS. HEDDON.

As a general rule they should, but if the season has been like it is here, there may be some exceptions. I found one of my queens of this year's rearing which had previously laid well, without brood, at the date given in the query.—C. C. MILLER.

It will depend largely upon the weather, whether warm or cold for the season. If there is neither brood nor eggs, though, I should suspect the queen was at fault; that is, if empty cells are to be found in plenty by her. —J. E. POND.

After bees have once stopped breeding it is hard work to get them to commence again, with me. But bees ought not to stop breeding so early as Aug. 17, it seems to me, in your locality.—G. M. DOOLITTLE.

Yes; but if the drouth has been as severe with you as it has been in many places this summer, it is not surprising that the queens should cease to lay at so early a date. When the queens once cease to lay in the latter part of the season, it may require more than a week's feeding to start them to laying again.—G. W. DEMAREE.

They should. If they have not, it argues no queen. Sometimes, however, the season is so poor that bees will stop breeding, and then a week's feeding is not always enough to start them again.—A. J. COOK.

Yes; but a severe drouth would interfere with breeding. After such an interference, it often takes more than a week's feeding to induce egg-laying.—THE EDITOR.

Bees not Filling out Sections.

Query 466.—My bees are not filling the outer edges, or the top cells next to the wood in the sections. I use 10-frame 2-story Simplicity hives, and 2 cases with foundation. Why is this? —A. T. D., Me.

There is too much room.—DADANT & SON.

There is not sufficient yield of honey. —J. P. H. BROWN.

I presume the season stopped too soon.—A. J. COOK.

There is too much room and not enough honey.—H. D. CUTTING.

Perhaps you are not crowding the bees enough, and perhaps the flow of honey is light.—W. Z. HUTCHINSON.

Because the yield of honey is insufficient to crowd them to do it.—G. M. DOOLITTLE.

I do not know, because I do not know the conditions, but I presume it is because they are not storing any honey.—JAMES HEDDON.

Probably honey is not yielding enough to fill so much space. They might do better with only one case, and fewer frames in the hive.—C. C. MILLER.

Who can tell? From the reports of the season so far, you are fortunate in getting any honey stored at all. Probably you give too much storage-room for the supply furnished.—J. E. POND.

Bees never fill out sections very well except in a good honey-flow. It is not in the hive, but in the season. A section having open sides is always better filled out than closed-side sections; but in a poor season the open sides offered only a partial remedy.—G. L. TINKER.

The fault is in the honey-flow. If there was plenty of honey in the flowers, the bees would cram it in every available cell. When honey is first stored in the combs, it is thin, and is spread over a large surface to hasten evaporation, and as the nectar thickens, the bees collect it together, and while this is going on, if the flow ceases, there are likely to be empty cells, and of course these will be on the outside, and not in the center. I have often experienced this state of things.—G. W. DEMAREE.

The honey-flow is insufficient, and the bees have too much room, and hence, neglect the most undesirable cells.—THE EDITOR.

Feeding to Rear Drones.

Query 467.—How much shall I have to feed to a colony every night, in order to induce the bees to rear drones? I need them to fertilize young queens.—J. F. B.

Enough to have a little stored every day.—DADANT & SON.

I should feed half a pint of sugar syrup to a very strong colony.—J. P. H. BROWN.

I have never succeeded in getting drones in the fall by feeding, or otherwise.—G. M. DOOLITTLE.

I should guess about one-half pound; but feeding alone may not be the only thing needed. An old queen is also needed. Are you certain that there are no drones in your vicinity?—W. Z. HUTCHINSON.

From 1 to 2 ounces, depending upon the size of the colony. Constant feeding will prevent the killing of drones, in many cases.—H. D. CUTTING.

One pint a day is sufficient, if the colony has a queen past two years old. So also a young queen about two months old may often be induced to lay drone eggs.—G. L. TINKER.

I do not know from experience, but I am afraid it will be difficult to accomplish when flowers are not yielding. They will probably do as much for a half-pint nightly, as for any larger amount.—C. C. MILLER.

I should feed one or two pounds, and at the same time strengthen the colony or colonies by adding capped brood. If there is no honey coming in, it is not always easy to secure drones so late in the season.—A. J. COOK.

Give them about ½ or 1 pound of food each evening; but sometimes no amount of feeding will cause the bees to rear young. See query 465.—JAS. HEDDON.

I do not think that you can accomplish the desired end by feeding alone. Remove the worker comb, and introduce drone comb in its place, and feed two or three fluid ounces of thin sugar syrup every night. This quantity will do as well as to feed more.—J. E. POND.

There is no certainty at all that you will get drone brood by feeding at this time of the year. If you have a very old queen, and feed her colony till the hive is crowded with honey, you may get drone brood, and get the queen superseded. It would be very strange, in the light of my experience, if there are not drones in reach of your young queens at this season of the year. I often have young queens mate when I can see no drone about the hive.—G. W. DEMAREE.

If the colony has an old queen, one-half pound, fed each evening, should induce them to rear drones; if the queen is young and acceptable, it will be difficult to obtain drones thus late in the season.—THE EDITOR.

Convention Notices.

CHANGE OF TIME.—The officers of the Cedar Valley Bee-Keepers' Association have postponed the time of the next meeting, on account of its clashing with the State bee-keepers' meeting. The meeting of the Cedar Valley Bee-Keepers' Association will be held at Waterloo, Iowa, on Sept. 20 and 21, 1887.

H. E. HUBBARD, *Sec.*, Laporte City, Iowa.

☞ The St. Joseph Inter-State Bee-Keepers' Association will hold its annual meeting at Saint Joseph, Mo., on Wednesday evening of Exposition week, Sept. 14, 1887. The Editor of the AMERICAN BEE JOURNAL will be present and deliver an address. Other interesting speakers will be present. The place of holding the meeting will be announced in both of the morning papers of Saint Joseph, on Wednesday. It is to be hoped that all of the bee-keepers who can, will make it a point to be present at the meeting, as there is a rich treat in store for them. EMERSON T. ABBOTT, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Feeding Bees for Winter Stores.

JAMES HEDDON.

In response to numerous letters asking me to write an article on the above subject, I will here embody some thoughts regarding it, many of which I have before presented to the public. I still maintain that feeding extracted honey to convert into comb-honey, is unprofitable, and so, I may say, is feeding the same to finish nearly-completed sections, except when and where everything is most favorable, and the apiarist is thoroughly skilled at the business.

I have before stated to you, both in the AMERICAN BEE JOURNAL and in my book, that I did not find stimulative spring feeding either wise or profitable, and as the present demand from me is in the line of feeding for winter stores (a few have asked if brood-rearing was not necessary at this time of the year, to insure successful wintering), I shall confine this communication to that class of feeding, with a negative answer to the above question in parenthesis.

THE FEED FOR BEES.

In practice, I have found that syrup made from granulated sugar is superior to any honey, as a food for bees when not breeding, and when in confinement. I feel sure that I have the true theory accompanying the facts. Many prepare feed from this sugar, by adding large quantities of water, sometimes stirring the sugar and (warmed) water together; and sometimes boiling them together. When syrup is fed thus thin, little or no acid is added, for the bees hold so thin a solution in their honey-sacs so long in the process of ripening, that they often add a sufficient quantity of acid, from their glands; but when fed in this way, the bees are compelled to evaporate or ripen it, and if later in the season, or the weather is damp and cool, failure may ensue.

Several bee-keepers have written me to know why their bees will not cap over syrup that they have been feeding them. They do not tell me enough of the minor conditions, so that I can be anywise sure of the cause of failure in their special cases, but I know of no reasons why our bees here would not at once cap over syrup, thus fed and stored, except that it was fed too thin to seal, and unpropitious weather prevented ripening it in the hive.

Now my preference, when feeding for winter stores, at any time of the year, or in any atmosphere, is to make the syrup of the consistency of ripe honey at once, and add the acid to prevent crystallization, when boiling the syrup. The proportions are as follows: Ten pounds of standard grade granulated sugar, to 3 lbs. of water and a level teaspoonful of good, pure tartaric acid. I say "good, pure," only to be sure of full strength.

I use a pan on a common cook-stove, conveniently holding the syrup from ½ barrel of sugar at one time. I first put in 45 lbs. of water, and as soon as boiling, I sprinkle in (continually stirring) 150 lbs. of sugar. As soon as all is dissolved and boiling, I add 15 level teaspoonfuls of tartaric acid, previously dissolved in one pint of water; stir all together, thoroughly scraping the crystals from the side of the pan, which will not form again after adding the acid. One man will easily boil 1,000 lbs. in a day, and place it in tanks with gates in the bottom. Just at night, about the time the bees cease flying, on a pleasant day, it will be cool enough to place the feed in the feeders.

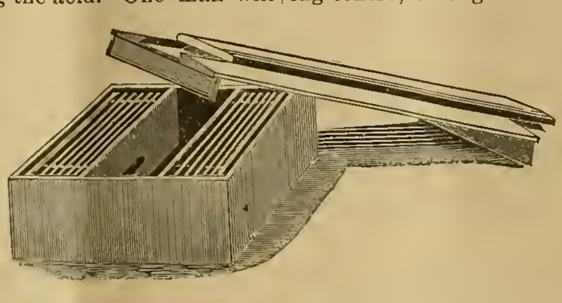
Mr. Doolittle has suggested the addition of a small proportion of honey (I think 10 to 20 per cent.) as a means of more certainly preventing crystallization, and, if I remember correctly, he would leave out the acid. I would prefer having all sugar, but there is certainly no danger in that proportion of honey, and as some brands of good granulated sugar have recently given trouble by crystallizing, even with the acid in the above proportions, I would suggest the adoption of Mr. Doolittle's honey addition; but at the same time, I would retain the tartaric acid, as stated above, for years of experience have positively demonstrated to me that it has no deleterious effects upon the bees, and just before Mr. Quinby's death, he was experimenting to demonstrate his opinion that acid was a preventive of bee-diarrhœa.

I would add the honey only where I was not sure that the syrup would not crystallize without it, and when used, it should be added the last thing, and the pan at once removed from the heat. I lift mine up, putting irons under it, and then immediately draw out the syrup by means of a large molasses gate in one of the corners of the pan.

The syrup and the hour being all ready for feeding, I use four 3-gallon tin-pails or cans with a milk-can top, bail and handle to carry by, with a lower grip-handle to tip it by, and a long curved spout coming out from near the bottom of the can and extending above the top. It is important that this spout should be large (the ones I use are 1½ inches in diameter), and crooked just right, and has a tight-fitting cap for the outer end.

THE BEE-FEEDER.

After my new hive and my break-joint zinc honey-board, I hold this bee-feeder as my best invention. Its working is nearly perfection. All have a right to make and use it.



The engraving represents the "Heddon Excelsior Bee-Feeder." Its capacity is 15 to 18 lbs., according to the consistency of the food, and I believe whoever once uses it will have no other. It has a large central reservoir with food-spaces and entrance-ways for the bees on each side. You will notice that the cover contains a sliding centre, through which the food is poured without coming in contact with the bees, or cracking any of the propolis with which they have made the feeder insect-and-odor tight.

When the liquid food is poured into the reservoir, it passes to the feeding-spaces by virtue of a crack under the partition, and an oblong hole through it. This feeder cannot leak, except sometimes a trifle, resulting from imperfect workmanship, and even then it must always leak inside the hive. The advantages gained by two side-entrances are very important, but space forbids detailing the reasons.

Some of my readers may have seen feeders possessing some of the valuable features of this one, and lest they might think it was strange I should call it a "Heddon feeder," I will explain which of its functions originated with me.

I think that it was Mr. Gray who first wabbled slots in a solid block to form feed-troughs in which bees would never become daubed or drowned. This he did some 10 or 12 years ago, I believe. At the time, I was experimenting with drone-comb, with the septums removed, but found Mr. Gray's method successful and more practical, and adopted it (as he gave it to the public), but I arrived at the same result by using thin lamina of wood, tacked together with spacing-blocks between, as shown in the cut. This arrangement is not only cheaper, but better, as it allows free passage under the divisions, which being attached to the reservoir division-board, form a movable trough, which can be moved at will whenever such removal is desirable.

I will now name the functions of this feeder, or any other, which I know were original, and I believe prior, in my own use:

1. Constructing a feeder in such manner that we may fill and refill it without coming in contact with the bees, no smoke being needed.
2. So that the feed-troughs are filled from below, by connection with a reservoir at their side.
3. Communicating the feed-troughs with each other, so that all will fill alike.
4. Communicating them with a reservoir, so that they and the reservoir must fill alike.
5. Connecting the feed-trough with the brood-chamber, by virtue of a bee-passage, which opens into the troughs at the top.
6. Constructing feed-troughs by using lamina of wood, held apart by blocks, rather than forming them by sawing slots in a solid block.
7. Constructing a feeder in such manner that it cannot leak outside the hive.
8. Constructing a cover in such a manner that the bees can glue it fast nearly all around, no odor from the feed can escape it, and refilling accomplished without removing it.

This feeder is well nigh perfection in its operation. It is eminently adapted to feeding, on a large scale. With it we have accomplished the feat of feeding 1,500 lbs. per hour, by the labor of three men; and without the least danger from robber bees. This is not an unusual accomplishment when feeding syrup for winter stores.

About the only objection to this feeder is the same that usually attaches to the best of things—it costs considerable to make it.

It will be seen how three men can place with the bees, in 100 of these feeders, 1,500 lbs. of syrup, in so short a time as an hour, and that hour between flight and dark. One man slides and reslides the covers; another follows up and empties in the syrup, and a third is constantly filling and bringing two cans at a time, changing two full ones for two empty ones. There are many days when the bees do not fly, and feeding might go on all day, with no exposure to robber bees, if anyone had bees enough and money to buy sugar to make syrup to keep three men busy at filling feeders, for ten consecutive hours.

As will be seen, this whole arrangement and system, offers less exposure to robber bees than any other yet made public, where feeding is done with the bees in full flight.

Dowagiac, ♀ Mich.

For the American Bee Journal.

The Season in Pennsylvania.

L. W. LIGHTY.

Our honey flow was "short and sweet." Last winter two-thirds of all the bees in "gums" and old boxes were killed by the cold; the spring was late, but my bees were in fine condition for fruit-bloom, which amounts to some comb-honey with us, by proper management and good weather. Fruit-bloom was immense, every twig being loaded with blossoms and very full of nectar. Bees worked at it about two full days, and filled the brood-chamber, when it began to rain, and continued to rain until the fruit and fruit blossoms were all ruined. There will be no fruit now.

Next came the locust, and full of nectar too, but the bees hardly got started when the cold rain began again, and continued nearly two weeks; by this time the fields were covered with white clover, but it was too cold for the nectar to be secreted.

After the rain was over, and it was warmer, we had 7 days of white clover bloom, and such a white clover honey shower I never before have witnessed in this part of Pennsylvania. Since white clover ceased to yield, bees had to work hard to get enough to live on. During that short flow I doubled my colonies, and secured 25 lbs. of honey per colony.

We now look hopefully forward to a fall flow, as we often have a fine flow from the asters, boneset, etc.

Mulberry, ♀ Pa., Aug. 22, 1887.

California Apiculturist.

Bee and Bird and Butterfly.

A. E. KERCHERAL.

Bird, and butterfly and bee,
Nature's brightest darlings, three!
Where the flowery treasurers cling,
Hasting swift on fairy wing;
Ever flitting on and on,
Like a spirit, seen and gone:
Flashing like the lightning's gleam,
Fading like a tender dream,
Sailors o'er the flowery sea—
Bird, and butterfly, and bee.

Bird and butterfly and bee,
Nature's blessed trinity!
Like the brief and transient snow,
Melting in the Spring's warm breath
In oblivion's hush and death;
What though creeds may veer and change
From the old, to new and strange:
What though kingdoms rock and reel
'Neath the blows of warrior steel,
Moulder, crumble slow decay,
Passing like a dream away;
What though empires rise and fall,
Rules your spell, surviving all;
Still earth's byways, all ye throng
With your gleam, and flash, and song,
Care and sorrow, all forgot,
Ot to-morrow heeding nut;
Bird, and butterfly, and bee,
Nature's fairy trinity!

Los Angeles, Calif.

For the American Bee Journal.

Free Honey vs. Extracted Honey.

J. F. LATHAM.

When used in connection with the word honey, or any other word representing a substance that is drawn, forced, or ejected from any source, the term "extracted" designates the manner by which the object was removed, only.

Honey, after it has been removed from the comb, whether by the centrifugal force generated by the motion of the reel in the extractor, or by pressing, is simply forced from the original receptacle as prepared for storage by the bees.

Extracted, as now used in connection with honey, savors more of an adjective of qualification than a verb, descriptive of the mechanical process by which the article is removed from the comb, and declares an action past "imperfect" without a shadow of sense relative to the *present* condition. After honey has been "forcibly removed" from the comb it *is* free (Saxon, "freoh"), liberated, and is so represented in commercial transactions, whether in barrels, kegs, or glass jars; but there appears to be no custom or rule, etymological, by which the phrase "free honey" can be made to perform the duty of honey *gratis* as hinted by Mr. Foster in the leading paragraph on page 503. Honey gratis would be as applicable to honey in the comb as out.

The word "free" can be used by the producer, or dealer when alluding to honey as simply describing its condition, *present*; it neither adds to nor detracts its quality. In many instances, the real difficulty in regard to the use of the word extracted as now applied in illustrating the condition of honey, seems to exist in the first lesson, by leaving a blank to be filled by the novice, with erroneous impressions, unless special pains is adopted by the teacher in explaining the subject.

Some will comprehend the process of extracting at once, while to others it is difficult to make "centrifugal force" fill the place of "sling." As I comprehend the subject, the single word "honey" is unsusceptible of modification. If a farmer "pulls beans" or "digs potatoes," he extracts them from the ground; but the act does not make them "extracted beans" or "extracted potatoes."

If a radical change is needed, by which to represent the sweet production of the bee-hive—were it not for the prompting and illusions in regard to there being more than one kind of honey—the word "floramel" seems to be well adapted to represent that which is now comprehended in the simple word *honey*. In the "roots" of the word "floramel," we have a compound declarative of the substance, and the source from which it is obtained by the nectar-loving insects, and the *nature* of the substance would "bar" a qualification of the word; "floral honey" would mean "honey from the flowers." But, withal, it seems that the word honey, in its honest simplicity, and "antiquity," occupies a position in the English language that would be difficult to supersede. To say a "gold dollar," or a "silver dollar" is an exaggeration; but to say gold or silver, when referring to those metals, whether reposing in the mountain-mines or the vaults of the United States treasury, is a fact. Leaving the "explanations" to those momentarily interested, and qualified to impart them, it appears that the terms "honey" and "honey in the comb" (the leading commercial conditions of the product), are all that is needed in trade.

Cumberland, ♀ Me.

Official Report to U. S. Entomologist.

Controlling Fecundation of Queens, etc.

N. W. M'LAIN.

The improvement which has been made in mechanical devices and methods of management by the scientific and practical apiarists of the United States during the past twenty-five years, has resulted in establishing the claims of the industry of bee-keeping to a place among the various branches of rural husbandry which are the acknowledged sources of a nation's wealth. Improvements in the art of bee-keeping and in the devices by which the art is practiced, are continually being made, and the degree of advancement made in the past is an earnest of the progress awaiting development in the future.

Improvements in the devices and methods of management and importing races of bees reported to possess desirable qualities and characteristics, have chiefly absorbed the attention of American bee-keepers. It is not strange that reliance has been placed upon these resorces as the means by which the best results were to be realized, rather than upon a persistent and skillful application of the laws of heredity and descent, and dependence upon the influence of intelligent selection and skillful crossing as a means for developing the highest attainable standard of excellence in *the bee*, the chief factor of permanent advancement.

The difficulties attending the control of the process of reproduction, of applying the laws of heredity and descent, and securing the influence of persistent, intelligent selection in breeding bees have appeared to be almost insurmountable. The very persistent efforts which have been made to improve the bees of the United States by yearly importations of the best races in their purity has also been attended with serious drawbacks and hindrances. These bees, bred for countless generations in a foreign habitat and under climatic conditions widely different from ours, are here submitted to conditions of domestication for which they are ill-adapted. Any modification and adaptation of habits, instinct, and physiological structure which may have been secured by breeding a few succeeding generations under the altered conditions and requirements incident to domestication in the United States, have been lost with each fresh importation of ancestral stock, and the work of securing the variability and adaptability of instinct, habit, physiological structure, and functional capacity essential to domestication here, must be begun *ab initio*.

That some practical method might be discovered by which the process of reproduction could be controlled, has long been the hope of all progressive apiculturists. With the control of fecundation assured, progress in scientific apiculture would be rapid and permanent.

In obedience to your instructions, I have continued my experiments in striving to discover a practical method by which the fecundation of queen-bees may be controlled. This I have endeavored to accomplish by two different methods, in both of which I have been in a degree successful. During the past summer, however, a drouth set in in May, almost with the beginning of the breeding season, which was said to be the severest and most protracted known in this locality for twenty-five years. No rain fell during eleven weeks, and during the four weeks next succeeding the eleven weeks without rain we had but three light showers, scarcely sufficient to lay the dust, practically resulting in an unbroken, all-consuming drouth fifteen weeks in duration. Under such conditions I found it impossible to bring many of my experimental tests to a successful issue.

Having discovered last year that it was possible to introduce the drone sperm into the spermatheca of the queen-bee during the term of orgasm, by artificial means, and that fecundation was practicable by such means, I attempted to perfect a method by which this could be done with ease and certainty. For the purpose of holding the queen-bee in position for introducing the drone sperm, I made what I call a "queen-clamp," which consists of a block of wood 2 inches square and 4 inches long, in one end of which is an opening in size and shape like the upper two-thirds of a queen-cell, with the small end up. This block is sawed in two in the middle, leaving half the cell-shaped opening on either half. Grasping the queen by the wings or thorax I place her in one half of the cell-shaped openings and carefully close the other half over her. I then place a rubber band around the block and stand it on end. This leaves the queen in position, head downward, the lower half of her abdomen protruding, and confined in such a manner that she cannot receive any injury.

For the purpose of appropriating and depositing the male sperm I used a hypodermic syringe. I removed the sharp injecting needle, and in its place substituted a nozzle having an opening of sufficient size to admit a knitting-needle of medium size. Over this nozzle I slipped a small, smooth tube, drawn to a point so small that the opening in the small end is not more than half as large as that in the nozzle. After selecting the drone I wish to use, I grasp the head and thorax between the thumb and finger, and by continued pressure cause him to perform the expulsion act. I then remove the bean in which the spermatozoa are massed, and squeeze the contents into a very small glass receiver, an eighth of an inch in depth and diameter. I then add a drop of glycerine diluted with warm rain water, and take up the spermatozoa with the syringe, using the wide nozzle. I then slip the cap having a fine, smooth point over the nozzle and inject the spermatozoa into the vulva of the queen. The queen, which has been held in position by the clamp while the preparations were being made, naturally bends the abdomen downward whenever so confined. The vulva is easily opened to admit the point of the fine nozzle-cap when the abdomen is lifted up straight. Of twenty-seven queens treated by this method the last week in May and the first week in June, six proved to be successfully fertilized. After that time, although I was persistent in my efforts to succeed, and made many and repeated trials, I met with success only occasionally.

Another method in which I succeeded in fertilizing a few queens in May, before the bees began killing the drones, was in the manner described in my report last year. I took a number of young queens from nursery cages, clipped their wings, and introduced them to queenless nuclei. When they were seven days old, orgasm being well progressed, I placed them each in turn in a queen-clamp, and, holding them back downwards, I picked drones from a comb taken from a populous hive, and caused them to expel the generative organs, and selecting those in which the contents appeared of the color and consistency of albumen, I placed drops of the seminal fluid upon and in the vulva of the queen, which were eagerly received. After the introduction of the drone sperm these queens were treated by the bees as fertile queens, and in one or two days assumed the appearance of fertile laying queens, and in from three to six days began to lay fecundated eggs.

The fact that I did occasionally succeed in fecundating queen-bees by these methods, which proved upon trial as prolific as any queens I had which had been naturally fertilized, queens which I had hatched in an incubator and in nursery cages, whose wings I had mercilessly clipped as soon as they had crawled from the cell, and which I knew had never been upon the wing, seemed to furnish reason to hope that I would be able to discover a method that would be uniformly successful. The hope of reaching this much-desired result made me persist in the face of discouragements incident to experimental work in breeding bees during the prevalence of a protracted drought. I am by no means discouraged by the partial success now realized. On the contrary, I am hopeful that under more favorable conditions better results may be obtained, and until other and untried resources fail I shall not feel warranted in abandoning effort.

Observation and experiment lead me to believe that drone-bees differ in degrees of procreativeness, and that the development and exercise of the procreative faculty are under the control of the worker bees.

First, there appeared to be drones of the impotent sort. If such be taken between the thumb and finger, no pressure short of crushing is sufficient to expel the sex organ. When forced to position external to the body, or if removed by a dissection, the organs are found to be nearly or quite empty, the few spermatozoa being massed in a hard lump, and but little mucus being present, and that little watery and clear and having no consistency.

Another sort of drones are those in which the mucus surrounding the spermatozoa is thick and curdy. With this sort I have not been able to fertilize a queen. The procreative principle is present in quantity, but the element in which it may be liberated and floated into the organs of the queen appears to be wanting.

A third sort of drones are those in which the sex organs are completely filled with spermatozoa and an abundant supply of albuminous fluid. It is only with this latter sort that I have been able to succeed in fecundating queens.

The facts observed seem to warrant the belief that it is the prerogative of the worker bees to determine the degree of development and dominate the function of the drones as they do the succeeding generations of workers and queens, the superior intelligence of the workers ordering the entire economy of the hive. During the first half of the severe and protracted drought of the past season I was able to rear a few drones by resorting to the usual methods employed for stimulating drone-rearing, but one-third of the entire number proved upon trial to be of the sort which I believe to be impotent, and nearly all of the remaining two-thirds were of the second class, not more than 5 or 10 per cent. of the entire number being furnished with the albuminous liquid necessary to enable the drone to voluntarily perform the expulsion act and complete the function of copulation, the filling of the spermatheca of the queen; for I am led to believe that the presence of this fluid, more than any odor or other influence from the presence of the queen during orgasm, excites in the naturally frigid drones the sexual desire and assists in the execution of the expulsion act, and furnishes the element in which the spermatozoa are floated into the spermatheca, and also that the workers intelligently and purposely determine the sexual development and dominate the fitness, the desire, and capacity of the drone, as they do the physical development, the fitness, the desire, and capacity of worker and queen bees for the natural performance of their individual functions; that is to say, if drones are reared during a drouth by artificially approximating the conditions under which the desire for drone rearing normally arises, only a small percentage of the number will be sufficiently furnished with the food essential to complete sexual development, the counterpart of which is seen in a less degree in the rearing of worker larvæ; and, further, if there is a failure of honey, or if for any reason the swarming impulse is absent and no emergency exists for the forming of a new colony, very few of the sexually mature drones are supplied with the food-elements essential in producing the secretion which excites sexual desire and supplies the agency by which the spermatozoa are freed and floated into the spermatheca, the counterpart of which is seen in the refusal of the worker bees to copiously supply the queen with the rich glandular secretion essential to oviproduction whenever their instinct warns them that ovipositing should cease and that further brood-rearing would only be a waste of energy, resulting in a generation of consumers and non-producers; for the queen is only a mother, and in no sense a majesty; only a machine, not a monarch. Other facts in my experience might be mentioned in support of this belief.

On October 15, Mr. Otis N. Baldwin, of Clarksville, Mo., wrote me that he had met with success in practicing the method of fertilization described in my report of last year, and that he had discovered that drones were of three kinds, namely: "Dwarfed, immature, and ripe." As directed by your letter of instructions of November 5, I went to Clarksville and interrogated Mr. Baldwin concerning his experience and observations, and I herewith give the substance of his statement made in reply to my questions. He said:

"I first go to my nursery and take the queens and cage them; I then go to the hive of drones and pick out as many as I think I may need, and then proceed in the manner you describe in your report of 1885. I believe the whole secret of success lies in the drones, and I am not able to tell how old the drone must be, or how the right condition is brought about, or whether it was originally intended that only a very small percentage of drones should be capable of fertilizing a queen. I have, however, discovered that there are three kinds of drones. First, the drone which, when squeezed, bursts with apparently dry organs of generation. Second, drones which burst with an abundance of seminal fluid resembling a mixture made by adding bromides to a silver solution. Third, drones which bursting show a fluid resembling albumen. With the two former kinds I have not succeeded in fertilizing a single queen. With the latter I have fertilized over two hundred queens the past season with but few failures after I found out the difference in drones. I carefully grasp the thorax of the queen between the thumb and finger of the left hand and with the right I pick up the drone which I have selected, and press the thorax and abdomen of the drone until the generative organs are expelled, using as many as I need until I find one in which the color and consistency of the fluid suits me. Sometimes only a few of the right kind can be found in as many as one hundred. I place a few drops of the male fluid upon the vulva of the queen, which is eagerly received, using one, and only one, drone for each queen. I have fertilized queens by this method that were not a day old, and others more than fifteen days old, and after clipping their wings, introduced them to their colonies, and they began laying in from six to eight days, and were satisfactorily prolific.

"As nearly as I could tell, those fertilized early were more prolific than those treated after they were ten days old, but the right condition of the drone is very essential. It is very difficult to get drones ripe enough before the first half of May and after the first half of August, but during June and July this method may be operated with gratifying results. Queens fertilized by this method and directly introduced into a queenless colony are rarely ever molested by the bees. I clipped the wings of the first twenty or twenty-five queens that I succeeded in fertilizing by this method, and finding the method worked to my satisfaction and with but few failures, I clipped no more wings."

The experience here detailed, as far as it relates to the procreativeness of drones, is in agreement with the facts within my own observation already set forth. The claim that a very large number of queens were successfully fertilized as set forth, and that, too, with but few failures in the whole number attempted, is lacking in the element of absolute certainty and completeness of detail which would entitle it to acceptance as of any scientific value. Mr. Baldwin assured me that "there could have been no mistake about it;" but in order to effectually guard against all possibility of the test being abortive, all the queens claimed to have been artificially fecundated should have had their wings thoroughly clipped before they were liberated. But the fact that the repeated successes were realized when the young queens were clipped upon being taken from the nursery-cage, never having had opportunity to bear their weight upon their wings, is an encouraging step in advance towards the solution of the most difficult problem in practical bee-keeping. Another season, with the presence of favorable conditions, will determine the practicability and value of this method.

FERTILIZATION IN CONFINEMENT.

Realizing that natural methods nearly always possess advantages over artificial methods, I determined if possible to gain control of reproduction by the fertilization of queens in confinement. That some inexpensive and practicable method might be devised by which the natural mating of queens in confinement could be secured, has very long been hoped for by all progressive apiarists. Very many attempts, in a variety of ways, some of which involved the outlay of considerable sums of money, have been made, but difficulties apparently insurmountable were encountered.

I removed the queens from 6 colonies which I had had confined in the house for experimenting with bees and fruit—a house 10 feet by 16 feet, 8 feet high, partly covered on the sides with wire-cloth, a wire-covered sash in the gable, and large screen wire-covered doors in each end. These were strong colonies, which had been confined in this house for thirty days and had learned the location of their hives, and from these the bees flew daily in great numbers, returning frequently to their hives. Into these 6 colonies I introduced virgin queens hatched from cells which I had placed in wire cages. Into each colony the virgin queen was placed without being removed from the cage in which she was hatched. In due time they were accepted and liberated. The day these queens were five days old I liberated about ten drones near to the entrance of each of these hives. These drones were brought from hives in the apiary, and upon being liberated most of them persisted in flying against the wire-covered sides and windows in the gable, and few ever entered the hives. Here again there was frigidity or disability apparent among the drones. When the young queens flew from the hives seeking a mate they mingled among the drones, crawling over them and caressing them with their antennæ, meeting with no response. These queens, with one exception, seemed to have no difficulty in getting the location of their respective hives.

The result of this trial was, one queen of the six was fertilized, and after she had laid eggs with regularity in two-thirds of the cells on both sides of one frame, after clipping the queen's wings, I removed this frame, with the queen and adhering bees, to a nucleus in the yard, and from the eggs laid in confinement worker bees hatched in due time, and the queen continued to lay as long as the nucleus was fed, there being nothing in the fields for the bees to gather. All the eggs laid by this queen were fecundated eggs. Being convinced that as far as the queens were concerned the difficulties in the way of success were not insurmountable, and that the main trouble was that the drones had not been furnished by the workers with the grandular secretion or the food suitable for producing the albumenlike secretion which I had been lead to believe essential to produce sexual desire and to assist in the performance of the copulative act, from these same colonies I removed the remaining unmated queens, and to each I introduced another virgin queen as before.

I then went to a distant apiary, and secured an unusually strong colony which was under the swarming impulse. A few queen-cells were being built and a moderate supply of drones was present. This was late in the season. This colony had not cast a swarm during the year, and was the only one I could find, after considerable search and inquiry far and near, having any drones, and probably owing to the excessive drought only an occasional one of the number examined had been prepared by the workers for the procreative function. I took this colony home and placed it in the wire-covered house at the end opposite that in which the virgin queens were located. I clipped the wings of the old queen so that she could not leave the hive, and upon being liberated the workers and drones of this hive made less effort to escape than those brought in from the apiary near by, and soon seemed reconciled to their new surroundings. The workers soon learned their location and drones were soon to be found in nearly every hive in the house. The result of this trial was that three of the six queens were fertilized, and as soon as they had each laid five or six hundred eggs I clipped their wings and then removed them, together with their colonies, to the yard and fed them, and all the eggs laid by these queens produced worker bees. I am much encouraged by the success so far realized under conditions so unfavorable.

With the return of spring I hope to follow out your suggestions and continue the test, using a large wire-covered inclosure for the purpose; with hives so arranged on the sides that the worker bees may have unobstructed flight, while the drones and queens, being restrained by means of queen-excluding zinc placed before the outside entrance to the hive, may fly and mate within the inclosure and readily return to the hives from whence they came. If practical control of reproduction can be secured by so simple and inexpensive a method—and the facts from my experience as given above seem to warrant the conclusion that this is true—then the Rubicon of scientific apiculture is passed.

Aurora,♂Ills., Dec. 31, 1886.

For the American Bee Journal.

Bare-Headed Bees and the Wax-Moth.

HANS ERSLEV,

(Editor of the Danish Bee-Journal.)

In the valuable AMERICAN BEE JOURNAL I have lately seen two articles referring to this subject—one on page 393, by Mr. Hoyle, and on page 470, by Mr. Hill. The first correspondent asserts that unsealed brood is connected with, and a sign of "foul brood," while the other denies this, but without giving any other explanation of the cause that will produce this strange phenomenon.

As I firmly believe, I am aware of this cause, and as the journal of my little native country very seldom reaches across the Atlantic, I take the liberty to send this little article, as I might perhaps be able to spread some light on this dark point, in return for all the valuable information which I, through several years, have drawn from the columns of the AMERICAN BEE JOURNAL.

Bare-headed bees are caused by wax-moth. I need not describe how much harm this enemy of bee-culture may do; how it destroys the combs and eats honey and wax in the hives, if the bee-keeper does not constantly pursue it and keep his colonies strong so that the bees may be able to destroy these bad visitors in their home. But besides eating wax and honey, the moth directly injures the brood, and this fact has not formerly been fully known or acknowledged; and I think the harm thus caused by the moth is far greater than most bee-keepers imagine.

The porous seals over the brood-cells consists of little particles of wax and pollen interwoven with the threads spun by the bee-larvæ. But if the nymph is attacked by the moth-worms down at the base of the cell, it grows unable to complete its cocoon, and it never becomes sealed. Often I have seen some few unsealed nymphs in a fine brood-comb, and when I have minutely examined the comb I was sure to find moth-larvæ in it. A healthy young bee will, itself, be able to gnaw off the seal over its cell, but when a bee-nymph has fully spun its cocoon and is well sealed, and then is attacked by moth-worms, the young workers that nurse the brood will gnaw off the seals. This is another case of unsealed-brood, but in both cases the "bare-headed-bees" are caused by the wax-moth.

I hope that this question will now be further investigated in America, and if my explanation will be confirmed, which I do not doubt, I hope that this fact may induce bee-keepers to pursue the wax-moth still more eagerly than formerly.

The worst cause to the developing of moth is using old comb in which the eggs and larvæ of the moth have not been previously destroyed. No care should be spared to do this, and to keep every colony strong. Then bare-headed bees would be rare, and bee-culture often more advantageous than hitherto.

Kelundberg, Denmark.

Florida Dispatch.

Increasing Colonies in Florida.

JNO. Y. DETWILER.

The management of the apiary in any locality must be governed by the sources from which the prospective honey crop is obtained. In those portions of Florida adapted to the specialist in apiculture, a routine should be followed that will admit of no mistakes or failures. By carefully noting the sources of nectar and the time of its secretion, as well as its duration, much loss of time can be saved. The usual time for increasing colonies by either natural swarming or dividing colonies, is in the early part of the season, when the nectar secreted is in a thin or watery condition, which is most conducive in brood-rearing and increase of colonies.

To successfully increase the apiary in the early part of the season, it is necessary to make the young colonies previous to the coming of the mosquito-hawks; and observe carefully that they are amply supplied with stores to build comb upon, as well as to rear brood. To accomplish this, in many instances it will require feeding, in order to secure the necessary force of field-workers in time to gather the first secretion of honey. When feeding is not desirable, either through the lack of honey or fear of robbing, a good plan is to make the increase at the close of the season, starting the cells in the season of the greatest honey-flow, allowing the colonies to fill the hives with honey sufficient for both old and new. Divide half the brood and give sufficient honey to fill the hive. Let them remain over night to note the loss of the queen. Insert a ripe cell the next morning, and the trouble is avoided that would be required in looking after a weak colony in the spring.

With drones flying, the fertilization of the virgin queen, in the absence of the mosquito-hawks, is as certain as in the northern States, and the colony is ready for business in the early spring. This method will be found advantageous when extracting has been practiced and the bees are in excess of what are required to winter over in one colony.

After properly arranging the colonies after the season is passed, an excellent plan is to let each colony severely alone, as the chances are more favorable for its wintering than if it is being continually "tinkered with."

Thus far the yield of honey from the mangrove and palmetto has been satisfactory. Of the former, the bees work industriously morning and evening, though many of the buds are yet unopened. The dry weather has its effect, and as a result, it is feared much that was expected to bloom will be blighted. Of the cabbage palmetto bloom, the bees are still working upon it to a certain extent. The protracted drouth has a tendency to evaporate the secretion, and the result appears to be more of a yield than has been secured heretofore.

There is not the least doubt but what the humid atmosphere of an ordinary season dilutes the secretion to a great extent in this locality. Under such conditions the value of the cabbage palmetto is of secondary consideration.

Swarming has for some reason been omitted from the programme in most apiaries this season. Of course, there have been exceptions of "starving out." Those colonies that have withstood the famine in the spring are amply supplied with stores for wintering. The extractor is in operation in a number of apiaries, but a few of our conservative apiarists think best to "tie up" the hives, supply frames, and look to next season for surplus honey. There are parties who keep the colonies destitute of honey by extracting, and the result will be full colonies of bees and starvation before the winter is over, unless feeding is resorted to.

New Smyrna,⊙Fla., July 25, 1887.

For the American Bee Journal.

"Bulk Honey" for Extracted Honey.

J. D. MANDEVILLE, M. D.

I see that considerable is being written concerning new names for honey in its different forms; and as there is some dissatisfaction with the names now in use, I am glad that the matter is being discussed. I hope that the subject will be agitated until the next meeting of the North American Bee-Keepers' Society, when the apiarists of the country in joint convention will adopt names for the different forms of honey, and then let us all adhere to those names, whatever they be, and use no other. Let those names be used in the bee-papers, price-lists, and especially in market quotations. I believe it belongs to us to settle this question, and that we have the same right to name and classify our products, and the goods in which we deal, as the dealer in pork, cattle, grain, oil, iron or groceries, or any other line of goods, for that matter.

I will quote market reports on pork, viz.: Long ribs, short ribs, side meat, breakfast-bacon, pickled pork, hams, shoulders, etc., and so I might quote from the market reports of other lines of business which are lengthy, and some brief. But let us be brief, yet plain and comprehensive.

I am not bitterly opposed to the names now in use, viz.: "comb honey" and "extracted honey," and I doubt very much whether we find any better. I think the people generally understand what is meant by "extracted honey," and that it does not mean "extract of honey." Most of them know what an extractor is, and have seen it in use, or at the State or county fairs, or have had them explained to them by the honey-dealer or producer. It is but a few years since the extractor was invented, and I believe that in a short time it will be understood by all, and probably in less time than it will take to introduce and bring into general use any new names.

But if we are to have new names, I would suggest "comb honey" or "honey in the comb," for honey in sections; and "bulk honey" or "honey in bulk," for extracted honey; and in the following is where I got the idea:

If I ask my grocer for a pound or two, or five pounds, of coffee, tea, soda, starch, canned fruit, soap, lye, potash, or for an ounce of spice, pepper, indigo, etc., he hands it to me already put up in paper, can, or box. But I say to him that I do not want this; havn't you got it by the quantity? and he at once replies, "Oh yes, I have it in *bulk*," and at once shows me the barrel, box, or bag, and says: "I have it already put up, or in bulk, but the bulk generally comes the cheapest. Which will you have?" and so it is with honey that is put into nice white cells of comb, and the comb put into sections, it will always command a better price than extracted or "bulk honey," the "Wiley lie" to the contrary notwithstanding.

It may be that this is one reason why some are asking for a new name for extracted honey—because it does not command the price that comb honey does; but a new name will not improve it in quality or price, for it must always take the second place when it comes to this. It might be well to have one, two or three grades of comb honey, and the same of "bulk honey."

Philo,⊙Ills.

["Bulk honey" as a name for honey out of the comb is both inappropriate and indefinite. Honey in the comb can be purchased "in bulk" (that is in *quantity*) just as well as that "out of the comb." Webster says that "sale by bulk" means "a sale of goods as they are, without weight or measure." It is not applicable to "honey out of the comb," for that is always sold by weight, and *never* by "bulk."—Ed.]

Rural New Yorker.

The Honey Crop of 1887.

W. Z. HUTCHINSON.

The season opened warm and pleasant, and colonies having abundant stores boomed right along; but the dry weather, especially in the Northwest, "boomed right along" too. Here in Michigan there came a week of rain, but it was just after white clover had opened its blossoms, and no honey can be gathered from this grand honey-plant during rainy weather.

It finally cleared off, and bees began work in the sections, when there came a week of weather so cool that scarcely a bee left the hive.

The next week it warmed up and the bees again began work on white clover, but before a section of honey was sealed over and ready to come off, basswood blossomed a full week earlier than usual, and the clover was deserted for the basswood. Basswood yielded fairly for about a week, and then the white honey harvest for 1887 was past and gone. One-fourth of a crop here would be a fair average, while in the drouth-parched regions west of Lake Michigan there is almost no surplus at all. California, that often loads down our markets with car-load after car-load of honey, has none to send this year, and, even if she had, it is doubtful if it would be sent, on account of the new freight rates.

Already prices are creeping up. First-class honey has already been sold in Chicago at 17 cents, wholesale. The dealers are awaking to the situation. The leading wholesale grocery house of New York city wrote me a short time ago, making inquiries in regard to the honey crop, and asking: "What is the outlook?" Taking the whole country over, there has not been more than quarter of a crop, and there should be no haste to sell. There is but little demand for honey until cool weather sharpens the appetite for sweets, and November is amply soon enough to put honey on the market.

There are probably some localities where not enough honey has been gathered for winter stores; or, if there has, it has been taken away, in the hopes that more would be gathered. Some will become discouraged on account of the poor season, and neglect the bees. It is quite likely that many bees will be allowed to starve the coming winter, their owners having become too discouraged or too disgusted with the business to prepare their bees for winter. Prices for honey will be high, and those who have bees to sell next spring may be able to sell them at good figures.

A *few* farmers sometimes make the most money in poor seasons, and the bee-keepers who will attend strictly to business, and not "lose their heads," may find the present poor season "a blessing in disguise." Bee-keepers, be sure that the bees are prepared for winter this fall in the best possible manner. If they need feeding, use a syrup of granulated sugar; it is equal to the best honey for winter stores, and is *cheaper* now.

Rogersville, δ Mich.

Local Convention Directory.

1887. *Time and place of Meeting.*

Sept. 14.—St. Joseph Inter-State, at St. Joseph, Mo.
E. T. Abbott, Sec., St. Joseph, Mo.

Sept. 15.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Sept. 20, 21.—Cedar Valley, at Waterloo, Iowa.
H. E. Hubbard, Sec., La Porte City, Iowa.

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Good Crop of Honey.—S. J. Youngman, Cato,⊙Mich., on Aug. 21, 1887, writes:

Although the dryest season known to the oldest inhabitant, bees have done fairly well. All colonies have cast swarms and stored from 40 to 60 lbs. of extracted honey per colony; chiefly from white and Alsike clovers, and also basswood. After six weeks of inactivity, they are now booming on buckwheat, fire-weed and a sort of bee-balm or mint, growing in wet and moist places.

Poor Honey Season.—J. F. Latham, Cumberland, ♀ Maine, an Aug. 22, 1887, writes:

The honey season in this vicinity has been a poor one. From 46 colonies I shall obtain about 1,200 pounds of honey in the comb, and an increase of 13 colonies from 18 swarms. Cold nights and extreme wet, with but few really good honey days, tell the story.

Extracted Honey—Not Discouraged.—Wm. M. Rowe, Lawrence, Kan., on Aug. 26, 1887, writes:

As it is evidently a failure to find a better word than "extracted," and for the reason that there is no word that so well describes the process of taking honey from the comb, I hope no producer will make any change. The word has come to be well understood by the public, and if there are any unenlightened individuals who do not know how honey is extracted, it will not take as much effort on the part of bee-keepers to explain and show the process, as it would to explain the new terms and reasons for changing. A change of name is cause for suspicion and doubt. The honey crop in Eastern Kansas is a failure; no honey from fruit bloom, and none from clover. I do not think I will have enough honey for winter stores for my colonies. I commenced the season with 9 colonies, secured 4 swarms, but 2 got away; yet I am *not* disgusted with the bee-business, even if the "good time coming" is yet a long way off.

Short Honey Crop, etc.—J. F. Dunn, Ridgeway, ♀ Ont., on Aug. 24, 1887, writes:

The honey crop in Ontario will be short, as compared with last season. Clover did not yield well, and while linden was in bloom the weather was exceedingly dry, with the temperature from 85° to 98° in the shade. I notice that an intelligent American public demand a new name for extracted honey, and that as yet none has been suggested that "needs no explanation," allow me to suggest one that ought to please all parties and just "fill the bill." Now suppose we call it. "centrifugally expelled, slung absolutely clear out of the comb honey."

[Yes; or any other outlandish, tongue-twisting or unpronouncable name! Why not?—Ed.]

Foundation Starters, etc.—John Boerstler, Vashon,⊶Wash. Ter., on Aug. 20, 1887, writes:

I have tried Mr. Hutchinson's plan of putting 2 swarms together, and foundation in all the sections, except one, and that one had no starters, but was left empty, and all the 47 sections were filled with white clover honey. This shows the value of foundation used as starters. I have been transferring my bees to Langstroth hives, and Italianized 3 colonies, and I expect to Italianize more soon. I think bee-keeping will be a good thing in Washington Territory.

Solar Wax-Extractor, etc.—J. W. Tefft, Collamer,⊙N. Y., on Aug. 20, 1887, writes:

A good wax-extractor for melting small bits of wax can be made of a sheet of tin 14x20 inches, the edges being bent up, and placed on a board, with large kerosene-lamp chimneys on the tin. Pieces of combs can be dropped in from time. It seemed queer to see the bees work hard yesterday, and to-day too cold for a bee to venture out of the hive. A bee-keeping friend of mine, last spring purchased some cheap hives, and hived his swarms in them on 2-inch strips of foundation, with the surplus cases on. All went well till the basswood honey flow was just over. He was just ready to remove the surplus, but neglected to do so; when, to his horror, on looking at his bees he saw the honey running out of the entrances of the hives. He caught 10 milk-pans full of honey. So much for "cheap" hives.

No Swarms and no Honey.—Mrs. Lucinda Emmons, Springfield,⊙Ills., on Aug. 30, 1887, writes:

I have had no swarms and no honey this year; everything is dried up. We have had but two or three showers since early in June. The bees are working steadily, but what they get I cannot say, unless it is grape juice, as almost every house in the city has a grape arbor, and the English sparrows destroy the grapes, and the bees then follow to gather the juice.

A Thankful Bee-Keeper.—W. T. Maddox, Alexandria, La., on Aug. 24, 1887, writes:

I have done fairly well in producing honey this year, having taken 9,000 lbs. from 100 colonies, and they had enough to winter on; though I expected to get at least 12,000 or 15,000 lbs. The spring opened beautifully and so early, and every colony swarmed. We had dry weather during half of March and all of April, but I cannot say that we suffered from drouth; though we have had a very peculiar season, the prevailing winds being from the northwest and northeast, evidently affecting the secretion of nectar in clover bloom, of which there was a profusion, and it bloomed long. I feel thankful, as the crop generally is a failure, I believe.

Buckwheat Yielding Fairly.—S McLees, May,⊶Mich., on Aug. 25, 1887, writes:

Some of my colonies have filled 35 1-lb. sections of honey. Alsike yielded well, white clover but little, and there was scarcely enough from basswood to give a flavor. We had several weeks of drouth—until the rain on Aug. 23, which has revived all nature, and set the bees at work again. They are now working on buckwheat, which promises to give a fair yield.

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.

J. T. Connley, *Sec.*

☞ The Hardin County Bee-Keepers' Association will hold a meeting on the Fair Grounds at Eldora, Iowa, on the 3rd day of the Fair, Wednesday, Sept. 15, 1887, at 1 p.m. All bee-keepers are requested to be present, and all interested are cordially invited.

J. W. Buchanan, *Sec.*

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the Bee Journal, and will send two or more free of cost to any one who will use them, and try to get up a club.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexations delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches. — We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2 00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

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The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this: Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discusson—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

Don't do it!—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—We quote : In 1-lb. sections, 15@18c The color makes the difference in price.
BEESWAX,—22@24c. R. A. BURNETT,
Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New comb is very scarce, and quoted at 17@18c. per lb.
BEESWAX.—23c.
Aug. 17. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.: 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.
BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 20@22c.; 2-lb. sections, 18@20c. Short crop indicated.
BEESWAX.—25 cts. per lb.
Aug. 25. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white liquid, 5¼@5¾c.; amber colored and candied, 4¼@5c.—White to extra white comb, 12@15c.; amber, 8@11c. Receipts light.
BEESWAX.—17@21c.
Aug. 27. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5¾c.; light amber, 4½@5c.; amber and candied, 4¼@4¾c. Receipts light; poor crop.
BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-bs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.: dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug. 6. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 16@18c.; the same in 2-lbs., 13@14c.; fair to good 1-lbs., 13@15c., and 2-lbs., 10@12c. Extracted white clover, in kegs and barrels, 7@8c.
BEESWAX.—21@22c.
McCAUL & HILDRETH BROS.,
Aug. 24. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 15c.; dark 2-lbs.,12@13c. choice white 1-lbs.. 18c.; dark 1-lbs., 13@14c. Calif. white 2-lbs.. 13 to 15c. Extracted, new choice white, 8@10c.; dark, 5@6c ; Calif. white, 8c.; amber, 6@7c.
BEESWAX.—20 to 22c.
Aug. 25. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c.. 2-lbs.. 15@16c.; dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.
BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS,CLOON & CO., cor 4th&Walnut

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.
BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Comb honey has been sold out perhaps better than ever before at this time, only remnants of dark honey being left. Choice white would readily bring 15c. in a jobbing way.
BEESWAX.—Fair demand,—20@22c. per lb. for good to choice yellow.
Aug. 19. C.F.MUTH & SON,Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.; 2-lbs. glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@6c. Demand large.
Aug. 30. F. G. STROHMEYER & CO., 122 Water St.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each ; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

* * *

☞ The Union Bee-Keepers' Association of Western Iowa will hold their annual picnic at the apiary of Thomas Chantry, near Casey, Iowa, on Sept. 15, 1887. All invited.
H. D. LENOCKER, *Sec.*, Dexter, Iowa.

* * *

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

* * *

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

* * *

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

FOR SALE.
Finest Apiary in Southern California.

WE OFFER for the next Ninety Days, an APIARY of 600 COLONIES of Cyprian, Syrian and Italian Bees, in about equal proportion. This Apiary is located in Ventura County, on the "Simi Ranch" about 45 miles from San Buenaventura, and 35 miles from Los Angeles. Mr. S. U. W., the owner of this Apiary, extracted and sold, in 1884, beween May and Sept., 86 tons of honey, and left 12 tons in the hives, which was extracted in Feb., 1885, making 98 tons from 552 colonies, and increased the Apiary to 1,200 colonies. This Apiary is in one of the very best localities for honey in the State, out of reach of fruit and other bees.

The Simi Ranch of 86,000 acres, is now being subdivided, and will be offered to actual settlers in suitable tracts.

The Apiary pays a rental of $80 per annum for the range. It is located so that Stock-Raising and Farming can be carried on at the same time. The hive is a movable-frame hive, and has an upper and lower chamber; the lower chamber has 12 brood-frames, and the upper has 10 store-combs, and are all full of honey; were not extracted this year. There are 200 extra hives and frames made up to increase the Apiary to 1,000 colonies. There is a Honey-House, a Dwelling-House, 10-ton Tank, a reversible 8-frame Extractor, and everything needed in the business.

☞ We have OTHER APIARIES in the County, and can locate parties wishing to come here, either on Bee-ranches, Stock-ranches, Farms or town lots.

Enquiries cheerfully answered, and printed matter sent *free*, on application to,

FORTH, EASLEY & REPPY,
Real Estate Agents,
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HURRAH FOR THE FAIR!

ARE you going to exhibit, and develop the home market? You will find our brilliant CHROMO CARD a power to extend reputation. This beautiful Card is printed in 8 colors, full of instruction and amusement.

Give the same enterprise to SELLING HONEY, that your merchant does to selling calico, and the Home Market will take it all.

I also have for sale a superior strain of

ITALIAN QUEENS

described in my Circular.

Address, J. H. MARTIN,
4C1y HARTFORD, N. Y.

Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send a sample copy of the Semi-Monthly Gleanings in Bee-Culture, with a descriptive price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly*, to

A. I. ROOT, Medina, Ohio.

HEAD-QUARTERS IN THE SOUTH
FACTORY OF
BEE HIVES, &C.
Early Nuclei & Italian Queens.
☞ Ninth annual Catalogue now ready.
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A POSITIVE FACT!

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Warranted, $1.00 Tested, $2.00.

☞ Special rates on large orders. Circular giving description of our BEES, free.

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31Ctf PINE PLAINS, Dutchess Co., N. Y.

Established 1857.
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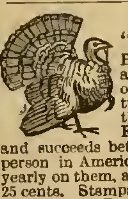
Satisfaction Guaranteed.
DESIGNERS AND
ENGRAVERS ON WOOD
CORNER OF
FOOT BLOCK, CLARK & MONROE STS. CHICAGO.
DEALERS IN
ENGRAVERS TOOLS & SUPPLIES.

BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 brood frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price - List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.



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BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

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It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

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BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

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More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

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SIX Warranted Italian Queens	$5 00
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PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
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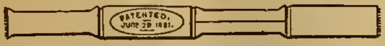
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WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
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☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
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In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

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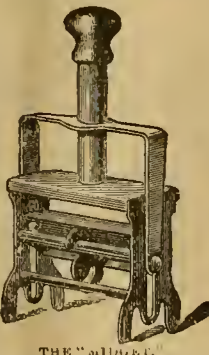
Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,



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26Etf BROCKPORT, Monroe Co., N. Y.

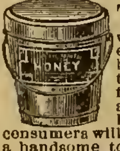
☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

ONE bright Tested Italian Queen, with 3 frames Bees and brood, $3.00. Tested Queen, $1.25.
5Aly O. N. BALDWIN, Clarksville, Mo.

NEW ONE-POUND HONEY PAIL.



THIS **new size of our** Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

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923 & 925 West Madison Street, CHICAGO, ILL.

W. Z. HUTCHINSON,

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HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother. 75 cents each, by **return mail.**
35Atf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

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TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

A Good Market for COMB HONEY.

THE Highest Market Price will be paid for COMB HONEY. Before disposing of your Crop write to

H. L. NICOL & CO.,
KANSAS CITY, MO.,
Proprietors of "Red Cross" Brand Honey.
33A4t

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Sept. 14, 1887. No. 37.

Our Friend and co-laborer, Thomas W. Cowan, Esq., editor of the *British Bee Journal*, visited Mr. A I. Root, at Medina, O., last week, and is to be at the Toronto Exhibition this week. On the 5th inst., we received the following from him, expressing the pleasure he has in his present short visit :

> My Dear Sir :—I must write and thank you for your hospitality and to say how much I enjoyed my visit with you, and only wish I had been able to stay longer, and to see more of the American bee-keepers, but this must be a pleasure reserved for a future not far distant occasion. I enjoyed my visit to Mr. Dadant's and I am altogether pleased with all I have seen.

His next visit we trust will not be *so short*, for many of our apiarists have been sadly disappointed in not meeting our distinguished visitor, and will look forward to his next trip to America as so much pleasure in reserve. The best wishes of American apiarists will follow him and his devoted wife, hoping that her health will be much improved by this excursion to America.

◆

The Market Quotations for comb-honey are still advancing. White honey in one-pound sections is quoted in New York at 19 cents ; in Vermont it brings 20 cents ; in Boston it is quoted at 22 cents. The cry is, " there is none offered for sale." Well, that is just the reason for the advance in prices. " Hold on to what you have " is the watchword. Do not sell any until next month, and 25 cents will come more readily than 15 cents did last season. Mr E. L. Westcott, of Fair Haven, Conn., wrote us as follows on the 6th inst.:

> A bee-keeper of this State lately received 20 cents per pound for his honey that he sent to a commission house. How will that do for prices ? I understand he had about a ton of white comb-honey, and it was all closed out at once ! I intend to make a shipment there immediately, of about a ton and a half. I will not give you the firm's name and address now, as I cannot tell what the result might be if too many should rush in their honey at one central point. It might possibly lower prices.

◆

The Baltimore County Fair was held at Timonium, Md., on Sept. 6 to 9, 1887. In the Bee and Honey exhibits $34.00 were offered as premiums.

Wiley's "Scientific Pleasantry" Doomed at last !—The " scientific pleasantry " which has made the name of Wiley so infamous throughout the world, and which was so greedily " caught up " and enlarged upon by sensational newspapers, with sundry " variations " to " spice up the story," has at last come to grief !

It ran like lightning ! Factory after factory was built (in imagination), fitted up by special machinery to make the comb. But, alas, when cornered by a demand to point them out, the " loud-mouthed " prevaricators found it *impossible to find even one!*

When taunted with the offer of a thousand dollars to lead a committee of investigators to the spot where such a factory existed—lo, it had *vanished out of sight ! !*

Undaunted falsifiers said that such institutions were " running day and night, filling fraudulent combs with glucose "—but when pressed to name the number, street and city —they *failed* to find any such place—even hundreds of dollars were tendered for a sight of such a place !

Then " the runners " who visit country merchants, gloated over the sensation and averred most positively that such honey-combs made of paraffine, filled with glucose, and sealed over by machinery, could be found on sale by the ton in Chicago. But when offered $500 to conduct us to the place and witness the process, they were forced to acknowledge that they, too, had been duped by the Wiley lie, and that they had added " variations" to make a spicy sensation !

Lawyers, doctors, and even ministers were " caught in the act " of villifying an honest pursuit ; having swallowed Wiley's " scientific pleasantry," without suspecting that it might be an *un*-scientific and *un*-pleasant falsehood !

Nevertheless, the story ran like wild-fire—newspapers and correspondents added to it, to suit their " fancy," and varied it to make it " spicy," until the pursuit of bee-keeping was, like a " bleeding lamb," sacrificed to their Moloch ; and bee-keepers were *derided* and *mocked* when they attempted to deny the " story," and prove its falsity ! But now that " scientific pleasantry " has been struck by lightning, exposing all its baseness, deformity and falsehood—for

> " Truth crushed to Earth will rise again,
> The eternal years of God, are her's."

The Sun, whose burning rays dried up vegitation and destroyed the honey-producing plants, and thus prevented the bees from gathering nectar from the flowers, has also scorched and dried up Wiley's lie, so that it will never more show its loathsome head !

The markets of the world are bereft of honey ! The merchants' demands for nice honey in the comb, are incessant. They advertise for it ; write to apiarists for it, and offer " golden shekels " for it !—still there is not nearly enough to half supply the demand, even though the prices go up, higher and higher every week !

Since writing the above paragraph, a honey merchant of Kansas City, called at this office. He is scouring the country—east and west—to find nice honey in the comb, offering cash for it at the apiarists' doors.

Now, here for weeks and months has the " golden opportunity " been presented, as Mr. Dibbern puts it on page 584, " for these mythical factories to run night and day to supply the demand " for glucose in paraffine combs ! Let them bring on the fraudulent article, " the combs of which are made by machinery, from paraffine, filled with glucose and sealed by hot irons !" Show up the beautiful stuff, which is such " a good imitation that only an expert can tell it from the genuine article gathered by the bees from Nature's finest flowers !" Yes, exhibit the tons of it produced by " running the machinery night and day !" Now is the time for the frauds to show up ! Forward ! March to the front !

Dare any one to say that if such machinery existed—if such manufactured " comb honey " were to be had—that it would not be forced upon the markets in such quantities as to fill the present urgent demand? A rich harvest is here presented—but NOT A POUND of the bogus stuff is presented for sale, at any price !—a confession that the so-called " scientific pleasantry " is a pernicious falsehood ! a villainous, debasing and diabolical lie ! which was struck by lightning, and literally *burned up* by the fierce rays of old Sol, at the same time that they destroyed the nectar of the flowers, and starved myriads of bees to death !

Ta ta " Scientific pleasantry !"

Begone, vile monster !

Thy sulphurous breath shall no more befoul that God-given, heaven-distilled sweetness —delicious honey !

◆

The Rev. L. L. Langstroth appears to have improved in health again. His son-in-law (with whom he resides) has moved his family to Dayton, O., and Mr. L. writes us that the change has been of some benefit to him. He adds : " I hope for relief from the head trouble." His numerous friends throughout the world will be glad to know that he has had even a *slight relief* in the malady from which he has so long suffered. His address is 928 Steele Ave., Dayton, O.

◆

One of the old-fogie " know-it-all " bee-keepers got a lot of honey, stored by the bees in soap-boxes, and such boxes as he could pick up at a grocery store, just as a matter of economy, and to save buying the " new-fangled " one-pound sections. The honey was gathered from white clover, and was a *very nice article*, and had it been stored in one-pound sections would have readily brought 20 cents per pound now, or 25 cents per pound later in the season. He shipped 300 pounds of it to a commission house in Chicago some weeks ago, and, as it was leaking, the commission man wanted to get rid of the sticky stuff, and he sold the lot at 5 cents per pound—the first offer that was made for it ! This transaction ought to give a salutary lesson to the know-it-all bee-man, but as he does not take any bee-paper, and knows nothing about the present value of honey, or a rising market, it is doubtful if he will *learn* anything ! After deducting commissions and freight he received about $13 for what should have readily brought from $60 to $75 in his home market. It was a pig-headed sacrifice of about $50 ! All on account of his bigoted opinion and general *ignorance !* The fool-killer ought to dispatch him without further delay.

◆

Fall Flowers are blooming profusely ; and where these abound, bees are happy.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

A Spring-House for Wintering Bees.

Query 468.—I have a spring-house 12x16 feet inside, with stone walls 2 feet thick. The spring runs a stream 1 foot wide by 1 inch deep. It comes out about 6 feet above the house. The north wall is in the bank to the top; the south one 3 feet; the wall is 8 feet high, with a honey-house on top, 16x20 feet, well protected from winds. How would it do to winter bees in? Would it be too damp?—T. M., Ills.

I should think that it would answer. —J. P. H. Brown.

It would be too damp in this climate.—G. W. Demaree.

If the temperature ranges from 41° to 45°, the spring-house will winter bees all right.—G. L. Tinker.

Bees will winter well, if you can maintain the right temperature—44° to 46°.—Dadant & Son.

I should say pretty well, if a temperature of 45° can be maintained. It would not be too damp.—G. M. Doolittle.

I should not have any fears about dampness, and so far as I understand it, I would consider it a good place to winter bees in.—James Heddon.

I should consider it a most excellent place for wintering bees. The air will not be damp as the result of the flowing water, *unless* the water is warmer than the air.—W. Z. Hutchinson.

It would be excellent, if it does not get too cold. The temperature should never fall below 38°, Fahr., and it would be better if never below 40°, F. You need have no fear of the dampness.—A. J. Cook.

I would not want to depend upon the 2-foot wall three feet above the ground. If you would put 2x4 inch scantling inside, and lath and plaster on them, you could make a good repository. With good bottom ventilation, I do not think it would be too damp.—H. D. Cutting.

It will be hard to settle the question positively, without trying it. I do not believe it would be too damp, as some winter. bees very successfully with water constantly running through the cellar.—C. C. Miller.

I do not think that dampness affects bees injuriously, unless it is cold enough to congeal the humidity, and the water would have the tendency to increase rather than lower the temperature. I think it would do well for a winter lodging-place. I prefer summer stands, to any other place for bees.—J. E. Pond.

If the temperature is all right, the running water will not be objectionable.—The Editor.

Reversing Hives to Prevent Swarming.

Query 469.—1. Will reversing or inverting the brood-chamber of a hive before the queen-cells are capped, prevent swarming, if the colony is in a normal condition? 2. If so, how many days should intervene between each inverting of the brood-chamber?—Le Clàire, Iowa.

No.—G. L. Tinker.

I do not think it will in all cases.—H. D. Cutting.

I have never tried it, but reports say that it will not at all times.—G. M. Doolittle.

Inverting cannot be depended upon to prevent swarming.—W. Z. Hutchinson.

Not with any degree of certainty; not in any degree practical.—James Heddon.

The whole thing is impracticable. No well-informed, practical apiarist would advise reversing the brood-chamber for any purpose.—G. W. Demaree.

If the colony is in a *normal condition*, strong and vigorous, it will not prevent swarming.—J. P. H. Brown.

I think hardly any one now claims that swarming can be prevented by inverting.—C. C. Miller.

It has appeared to do so with me, though some with more experience say it will not. I inverted once a week, got no swarms, and a nice lot of honey in the sections.—A. J. Cook.

1. Sometimes yes, and sometimes no, in my experience. 2. This inversion business by wholesale cannot be done by rule; it is all guess-work, and for that reason is fast going out of date. Contraction is the real principle to work on, and can be better accomplished in other ways than by inversion; inversion being nothing but a bungling method of contraction.—J. E. Pond.

No; swarming cannot, with certainty, be prevented by inverting the hive.—The Editor.

Sectional Hives vs. One-Tier Hives.

Query 470.—In starting an apiary, should I adopt sectional brood-chamber hives, or the common, one-tier hives?—M. M., Iowa.

I should prefer the sectional brood-chamber hives.—W. Z. Hutchinson.

I should commence with two-story hives.—J. P. H. Brown.

We prefer half-stories on top of the brood-chamber.—Dadant & Son.

I still use the one-tier hive, and all experiments so far tried do not cause me to desire the sectional brood-chambers.—G. M. Doolittle.

That depends upon which *you* will like best, and you can only tell by trying one or both. As yet, I prefer the one-tier hive; yet the other has advantages.—C. C. Miller.

I am using sectional hives, and I think well of them. They have many advantages, and for queen-rearing they certainly excel every other hive. They require protection in spring, or the bees breed up slowly in them. But after the colony is strong enough so that the queen can enter the upper brood-case, the progress is rapid. Chaff protection will make the difference of success or failure with these hives, and to a great extent the same may be said of any hive.—G. L. Tinker.

I have not bothered with sectional brood-chambers enough to advise in this case. The common hive with loose bottom-board, that can be tiered up when desired, is good enough for me.—H. D. Cutting.

Adopt a frame hive of some kind, and do not attempt to run more than one style of frame. I consider the Langstroth frame the best style in use. —J. E. Pond.

I think it would be safest to adopt 8-frame Langstroth hives. The sectional hives are yet in the experimental stage, and as yet so few are used, that one would have more ready market for colonies in Langstroth hives. —A. J. Cook.

That depends upon the style of construction of the brood-chamber sections. I would no more think of going back from my divisible brood-chambers, to the indivisible, as used before my invention, than of returnto the hollow-log bee-gum.—James Heddon.

If you have *experience*, adopt the hive you like best. But if you are a beginner in the business, I would advise you to begin with some good, plain hive, as the Standard Langstroth, or some other well-tried hive. The old advice so prominent in bee-literature several years ago, viz: Beware of "patent right men"—"patent bee-gums," should be heeded now as well as then. I do not know what you mean by a "one-tier hive." I use a modernized Langstroth hive, and it is "sectional." All good hives adapted to the "tiering up" system are necessarily "sectional." If you mean by a "one-tier hive," a hive in which the surplus is stored at the sides of the brood, instead of over it—I would not use such a hive at all.—G. W. Demaree.

An "experienced apiarist" who desires to start a new apiary, should select the newest practical inventions which he may deem the best suited to his ideas and method of management. A novice cannot err in adopting an ordinary Langstroth hive.—The Editor.

Don't do it!—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

Statistics of the Average Honey Crop.

JOHN H. LARRABEE.

I am so situated that it is impossible for me to consult statistical reports; and I would like to know how and where I can obtain statistics of any kind or even estimates concerning apiculture in the United States. An article on the statistics of apiculture would be very acceptable to me. Can we not have such an article either from the editor's pen, or from that of N. W. McLain?

Larrabee's Point, +O Vt.

[We requested Mr. McLain to give us all the information he possessed on this point. The following is from his pen:—Ed.]

Editor American Bee Journal:—In my first annual report to the U. S. Entomologist, you will remember that I called the attention of that officer to the very generally expressed desire that the Commissioner of Agriculture instruct the correspondents of the Department in the several States, to gather and report statistics and estimates concerning the number of colonies of bees kept within the areas covered by their individual reports, upon the fifteenth day of May, each year; and also to furnish upon the first day of October, an approximate estimate (based upon careful inquiry) of the amount of apiarian products secured, together with full information concerning the condition of the bee-keeping industry, and that the information so obtained might be given to the public through the Bulletins issued by the Department.

That such information would be of very great value to those engaged in the business of honey-producing, is readily seen. A knowledge of the supply of any commodity aids the producers of that commodity in fixing the price of their products.

Inasmuch as no special appropriation has been made by Congress for encouraging and developing the industry of bee-keeping, but little of much that is important and urgently needed, can be undertaken.

The officers of the bureau have done what they could for our industry, with the very limited resources at their disposal, and my instructions have covered a few lines of experimental work which in the judgement of the Entomologist are most valuable and serviceable to those engaged in bee-keeping.

Of my own accord, I made some effort toward collecting and compiling facts and estimates concerning this industry. I wished to be able to give an approximate estimate of the number engaged in bee-keeping in the United States, and the several States; the number of colonies kept, and the annual product of honey and wax in the United States, etc., but the more I investigated the matter the more unsatisfactory the results of such inquiry appeared. I obtained the Annual Reports of a number of State Boards of Agriculture; and the reports of a number of State Bee-Keepers' Associations; and the tabulated exhibit of statistics concerning bee-keeping in the census of the United States, and I found each available source of information misleading and of little actual value.

For example: In an annual report of a State Board of Agriculture, the number of colonies of bees reported as being kept in a certain county in which I was acquainted, was 1,500. I knew that in single townships in that county nearly or quite 1,500 colonies were kept.

And again, turning to page 250, of the United States census for 1880, I find the State of Tennessee is accredited with producing 2,130,680 pounds of honey, and the State of New York with only 2,088,845 lbs. North Carolina is set down as producing 1,591,590 lbs., while Pennsylvania has but 1,415,093 lbs. Kentucky has 1,500,565 lbs. to her credit, while Ohio has but 1,626,847 lbs. Virginia has credit for 1,090,451 lbs., and the State of Illinois has but 1,310,806; Georgia, 1,056.024 lbs. and Iowa but 1,310,138 lbs.; Arkansas, 1,012,721 lbs., and Michigan only 1.028,595 lbs.; Wisconsin, 813,806 lbs., Vermont, 221,729 lbs.. and Indiana has only 967,581 lbs. To say the least, these figures are misleading.

Who that is at all conversant with the facts concerning the industry of bee-keeping in the several States of the Union would admit that the State of New York is second to Tennessee? or that Pennsylvania is second to North Corolina, in the number of pounds of honey produced?

N. W. McLain.

[The Table referred to by Mr. McLain was published in full on page 819 of the American Bee Journal for 1884. But it is so manifestly incorrect, that it is entirely useless. Arkansas is credited with producing double the amount of honey which California is credited with; and North Carolina is given 50 per cent. more than Michigan, and more than either Illinois or Iowa. Our estimate, based upon statistics gathered by us some years ago, is that there are about 300,000 bee-keepers in the United States and Canada, and the average annual product is one hundred millions of pounds of honey. Our Tabulated Statement by States may be found on page 320 of the Bee Journal for 1881.

Not only are the figures unreliable with reference to bees and honey, as given in the U. S. Census for 1880; but the statistics about our industrial condition are equally fallacious. This is admitted by Col. C. D. Wright, chief of the bureau of labor statistics at Washington, in an address given by him before the Social Science Association at Saratoga, N. Y., on Monday of last week. Among the many short-comings of the Census which he pointed out, are the following:

> The statistics of illiteracy, are from inherent conditions incorrect, because there are thousands of families who do not confess to the enumerators that they have members who cannot read or write.
>
> Another instance of necessary error is the census of the insane, which has not yet even approximated accuracy, because a very large number of insane persons who are not confined in public institutions are never counted. Neither can the prevalence of idiocy be accurately measured, because people will not tell that they have idiotic members in their families. Likewise many local censuses as well as the national census of mortality are yet in many cases far from approximate accuracy.
>
> But all enumerators of this kind err on the favorable side. The number of illiterates and idiots and insane persons and of deaths is always too small. Conclusions drawn from them are not always vicious or wrong, but conclusions drawn from comparative statistics of these kinds are almost sure to be misleading. For example, if the census of the insane at one date be taken more accurately than at a preceding date (which is nearly always the case), a comparison would indicate an increase of insanity which the facts do not warrant. The increase is really what may be called an *increase of accuracy* in enumeration. Comparative statistics on these subjects, therefore, which seem to show an alarming increase in ignorance or insanity are misleading.
>
> But a far more general and more important error of the same kind is made in dealing with comparative statements of pauperism. Our pauperism increases much faster statistically than actually. In the early statistics of pauperism were counted only the inmates of the poor-houses. As census-taking becomes more of a science an effort is made to include all the real pauperism in the land, a very insignificant portion of which is in alms-houses or can be classified as mendicancy. The increase of poverty therefore, which the statistics show may not and probably does not exist. As census-taking becomes more and more accurate, comparative statistics between the past and the present become more and more misleading.

Now, we would suggest, as Col. Wright is very likely to have charge of the next census, that he inaugurate a new plan, and have correct statistics of bee-keeping collected by the census-takers. The tabulated statement of the last census was manifestly incorrect and misleading in every particular; and any calculations made upon that statement, are not only worthless, but injurious and demoralizing.

As these serious defects are realized by the census board, we may hope for "better things". in the next census reports. "These two questions, capital invested and average wages, as answered by the census," said Col. Wright, "illustrate the fallacy of attempting to solve a certain line of economic questions through the census as it has existed. In making this criticism let it be understood that I arraign myself as severely as anyone else, for within a few years I have followed, in all the census work in which I have been engaged, the old form, nor did I fully comprehend the enormity of the error, the infinite harm it has done and is likely to do."—Ed.]

Gleanings.

What has the Harvest been ?

W. Z. HUTCHINSON.

It has been pretty slim here—the poorest since I have been in the business. In a letter, Mr. Heddon says: "Clover, one-fourth crop. Basswood blossomed full, but no better crop than clover. It went right by like a cylone, and was all over before we knew that it was drawing to a close." This expresses the situation exactly.

Well, what are we going to do about it? We can keep our dishes right side up, and I presume most of us have lost nothing from lack of care in this direction, but we cannot make honey-showers. Those of us who are fortunate enough to have any surplus will probably find ready sale for our honey at a good figure.

Prices will probably not go so high that our income would be what it would have been had the harvest been abundant; still, this is not impossible. Farmers sometimes make the most money during the years when crops are light. Twenty-five or even twenty cents per pound for comb honey would be a big boost for those who have a few hundred pounds to sell. That these figures may be reached, does not seem at all improbable. Already honey is being quoted at 16 to 18 cents, while nearly every market is reported as bare of honey. Honey-dealers are becoming really interested in the situation. Those who have honey to sell should not be in a hurry to market. Certainly nothing can be lost by waiting until November or December.

And now a word about the bees: Many of them will probably be short of stores, and, unless fed, will die of starvation in the coming winter. Many bee-keepers will "lose their heads," become disgusted and discouraged with the bee-business, and the bees will be neglected.

Honey will bring a big price, and by next spring their courage will return, and those who have bees to sell will have no difficulty in getting good prices. So, to those who will attend strictly to business, the short crop of this year may be a blessing in disguise.

See that the bees are well cared for; that they go into winter quarters in first-class condition. This will probably be one of the years when it will pay to winter the bees on sugar, as the difference in price between honey and sugar will be greater than it has been in several years. Keep a stiff upper lip, and, if you must retreat, do so in good order.

Rogersville, Mich.

For the American Bee Journal.

Causes of Drouth, Securing Rainfall, etc.

J. M. HAMBAUGH.

Any suggestions or ideas that endeavor to explain the cause of the great absence of rainfall throughout a large portion of our territory, will meet with a critical eye thousands of eager sufferers throughout our drouth-ridden districts; and in proportion as the arguments are plausible, and in accordance with the natural laws governing our universe, will they be accepted as truthful arguments.

I am in direct sympathy with Prof. Hills' statement on page 487, and believe that when we remove the natural cause of rainfall, by drainage and tileage, we may reasonably expect a reverse of the natural laws in the shape of drouths; and the more perfect and general this system becomes, the greater will be the absence of rainfall, and more especially during the summer season, when it is most needed. During the times of the equinoxes in spring and fall, the elements are more active, driving the mists from the ocean and larger lakes further inland, where they are precipitated more generally over the country, rendering the country less liable to drouths; but as the hot days of summer advance, evaporation becomes greater, and the winds less prevalent, the Earth is soon drained of her waters that flow quickly into the main channels and rivers, and from thence to the lakes, gulf, and ocean, and the earth is left destitute of the wherewith to cause rainfall; hence with the cessation of the winds, may we reasonably expect but little or no rainfall, when it must emanate from a distance of from 300 to 1,500 miles.

The proof of this is the fact that the greater portion of the rainfall during the months of July and August have followed the coasts of the gulf, oceans and lakes. Should this prove a correct theory of our present troubles it then becomes us as an enlightened people to secure a remedy, and which will be found in the following sentence: Keep our waters inland. As Prof. Hill states, this can be done by artificial lakes, and will prove a source of both pleasure and profit, aside from gratifying nature's laws for irrigation, etc.

Besides the great benefits to be gained by a plentiful rainfall, we may avert, to some extent, the ravages of the cyclone. I believe that while the destruction of the forests from the face of the earth is breaking one of the barriers of its ravages, there are still other causes not generally understood; one of which might be the absence of sufficient evaporation to cause condensation quick enough to prevent the storm assuming the shape of a cyclone. I believe that the accumulating power acts as a magnet, attracting the elements from a long distance, and where there is an absence of evaporation, there is no retarding the progress of the winds, which increase as they advance, until they are retarded by heavily condensed vapors, which can be averted, in a measure, by an increase of evaporation. I would be but too happy to assist in the cause that will avert a repetition of this year's catastrophe.

While prayer might be efficacious, I believe that Almighty God has given us an intellect whereby we might study understandingly natural causes, and with the aid of His powerful and divine wisdom, work out the remedies. Let every one bend his intellect and energies in this direction, and under the supervision of the All-Seeing Eye above, the remedy will come.

Like Mr. Penfield, on page 534, "We know how indispensable the factor (of rain) is to the farming and bee-keeping industries." In the place of barren or burnt up fields, we would have them heavily laden with the products of the soil. In the place of empty hives, we would have them filled with honey, and a joyful, happy populace.

Spring, Ill.

Haldimand Advocate.

Haldimand, Ontario, Convention.

The Haldimand Bee-Keepers' Association met at South Cayuga, Ontario, on Saturday, Aug. 27, Mr. Kindree, President, in the chair. The minutes of the last meeting were read and adopted.

WHEN TO PREPARE BEES FOR WINTER

The President said that he commenced preparing his bees for winter in the early part of September; he crowded the bees on as few frames as they could cover, put sticks over the frames so that the bees could get to their stores, and put a chaff cushion on top. He contracted the entrance to the hive so as to prevent too much draft, and put a division-board in the front part of the hive.

Mr. Armstrong examines his bees to see that they have a good queen, and that there are plenty of young bees. He would advise those who had extracted too closely, to feed their bees at once, so as to start the queens laying, and see that each hive was supplied with at least 30 lbs. of stores. He wintered his bees in single-walled-hives in a clamp, well packed with sawdust or chaff on all sides and on the top; he preferred sawdust, as there was no danger of mice disturbing the bees. In answer to a question, he said he could tell whether a queen was a good one or not, by the strength of the colony.

Mr. Isaac Overholt kept his bees in a clamp in winter and summer and had been very successful, but this summer one of his clamps was too hot, as the combs had all melted and the bees died. He supposed the loss was caused by want of ventilation.

In answer to Mr. Coverdale, Mr. Armstrong said that if he had a good cellar he would winter some of his bees in it, but his cellar was not fit. The cellar required to be well ventilated.

Eighteen members present reported 244 colonies spring count, and 445 colonies at the present time, with 9,745 lbs. of honey produced.

An informal discussion then took place on various subjects, and a number of questions were asked and answered by the members. The meeting was a very enjoyable one, and nine new members were added to the roll.

It was moved by Mr. Armstrong and seconded by Mr. Rae, that the next meeting of the Association be held at Cayuga on the 3d Friday in January, at 1 p. m.

Mr. and Mrs. Geo. Best kindly entertained a number of the bee-keepers from a distance, and made their visit a pleasant one.

E. C. CAMPBELL, *Sec.*

For the American Bee Journal.

Making the Tin T-Supports.

G. W. DEMAREE.

A long and labored article which appeared in one of the bee-papers recently, trying to explain with a number of illustrations, how to make the tin **T**'s, which are used to support sections in section-cases, by means of the tinner's "folding machine," reminded me of the old adage that "necessity is the mother of invention," and that I might help some of the fraternity by describing a simple and accurate method of making the tin **T**'s, and by the use of a most simple arrangement which may be made by any ordinary mechanic.

The device is simply a wooden vice made of two blocks of hard wood. The blocks of wood, as I make the device, are 2¼ inches square, and are a little longer than the tin **T**'s are wanted. They are dressed square and true so as to "bite" from end to end. An iron bolt through the center of the blocks with a "nut" and hand lever, is the cheapest way to tighten the vice, though I have a wooden screw in my device which is more costly, and works better. Two dowel-pins made of iron (cut from a large wire nail), one at a point, say two inches from each end of the vice and a scant ½-inch from the face of the vice, are driven fast into one of the "jaws" of the vice, and enter loosely into holes made in the opposite "jaw." These dowel-pins hold the vice in position, and guage the width of the stems of the **T**'s.

Now for the *modus operandi:* I get the tinner to cut the tins 1½ inches wide, and as long as my cases are wide, and fold them evenly. This gives me strips of tin folded ¾ of an inch wide, and just as long as I want my tin **T**'s. The tinner's folding machine can put the strips of tin in this shape cheaper than by any other method, but here it stops, and is of no further service in completing the work.

They are now ready for the vice. The vice is laid on the work-bench before the operator, and the screw is turned so that the "jaws" open slightly, when the folded edge of the strip of tin is shoved down between the jaws of the vice till they rest on the dowel pins, which guages the width of the stem of the **T**. The open edges of the folded strip of tin will now project ¼-inch above the face of the vice. With a blunt chisel the edges are separated and bent over, and then they are hammered down flat on the face of the vice. The screw is now slackened and the perfect tin **T** is lifted out.

A year or so ago I consulted one of our best tinners as to the best and cheapest plan to make the **T**'s, showing him a sample which had been made as described above. He was exceedingly pleased with the workmanship the sample displayed, and with the simple plan employed to make them. He thought it would require costly machinery to do the work as well, and with rapidity. The simple plan that I have described, though comparatively slow, answers all purposes in a large apiary, as the tin **T**'s can be made in the winter at the cost of a little time only, and almost any body can make them.

In my opinion, nothing equals the tin **T**'s for supports for sections. I believe that it was the the Editor who, in his answer to one of the queries relating to the **T** supports, suggested that they might bend under the weight they have to sustain. As I make the tin **T**'s, their stems are a scant ½-inch wide, and being double, and clamped between the rows of sections, their strength is more than sufficient to support the full sections. The secret of their strength is, they stand on their edges and are clamped between the sections so that they cannot careen to either side. While removing some section-cases with 32 well-filled sections to the case, the past season, the end of one of the cases slipped out of my hand and fell to the ground with great force, while I held on to the other side. I expected to see the sections, heavily filled with honey, go through the case with a smash, but the tin **T**'s held them firmly in place.

At the beginning of last season I made preparations to test practically the question of separators, and no separators, in the same apiary, and with the same style of section-case, and with the same strain of bees. But the season was so unpropitious for surplus honey, that I must wait for a better season before I pass judgment.

Christiansburg,♂ Ky.

For the American Bee Journal.

Bees and Bee-Keeping in Texas.

JNO. A. EMISON.

I wish to tender my condolence to the drouth-stricken localities of the United States. I passed through the same affliction (only more so) last season. I saw colony after colony leave their hives for want of food, and take to the woods to die. It grieved me beyond measure, but what was I to do? To purchase sugar to feed 120 colonies, was, in a financial point of view, an unsafe investment. So I took 30 of my best colonies, fed them up, and let 90 die.

Then in the great autumnal storm that devastated our locality, I lost 5 out of the 30. So I began the winter with 25 colonies. Oh, the toil and vexation of spirit that I had in trying to keep the beautiful vacated comb. I referred to my copies of the AMERICAN BEE JOURNAL, and read what this one said, and what that one said, but all to no avail; the pesky, loathsome wax-worm mastered me. Then I extracted the wax, and what a time I had. This brings me to the acknowedgement of my thanks to Mr. Demaree, for the gift to the public, of his solar wax-extractor. I now almost sigh for comb, to see the beautiful wax come trickling down, while I sit in the shade reading the BEE JOURNAL.

I have read with some interest and a little amusement, what has been written about the new name for honey out of the comb. I score one vote for "extracted honey."

I noticed in a recent number, that someone asked if anyone had tried the sweet clover here. I have it on my place and it is a complete failure in this locality, as a honey-bearing plant. I keep it for its fresh, vigorous growth and sweet bloom. I have tried all the honey-plants recommended in the AMERICAN BEE JOURNAL, and none could stand our climate except the sweet clover. I wish to try the Chapman honey-plant and the Melissa, if I can get the seed.

My bees have with, or under, all discouraging circumstances this season, produced some honey but no increase. I am now preparing to increase my apiary. My bees are now storing honey from the Brazil wood and tea-vine.

My bee-keeping has yielded more "experience" than money. I follow it more for the pleasure it gives than for the profit. Hour after hour do I spend in my apiary, listening to the busy hum of my little pets. I hope the season of 1888 may be brighter to one and all.

Mission Valley,♀ Tex., Sept. 1, 1887.

Plowman.

Bee-Notes for September.

C. H. DIBBERN.

It is now more than twenty years since I commenced keeping bees, both for pleasure and profit, and during all that time I do not remember of a more unfavorable year for honey than the present. Last month we enjoyed some seasonable rains; but the moisture was soon gone, under the blazing hot sun of July and August. What little clover was left, has now nearly entirely disappeared, and the prospect for a fall crop is very small. I have watched the bee-papers closely, and find that this condition is prevailing generally over the Western States. Reports from the Southern States are not much better. East they seem to have had more rain, and there are some reports of fair yields of honey. California will have but little to ship this year, so that it is now certain that the supply will be very small. Already the orders are coming in thick and fast for some more of that nice honey, like we sent last year, but alas, our shelves are still empty, and likely to remain so.

THE "WILEY LIE."

Every little while some paper gets off some new version of the "Wiley lie;" that is, that nice comb honey is now produced by machinery. If this could be done, now would be the golden opportunity for these mythical factories to run night and day and supply the demand, while the bee-keepers themselves might buy quantities of sugar or glucose and feed it to the bees, and cause them to make it into nice comb honey. If this could be done, now if ever, would be the time that the dishonest bee-keeper would be reaping a golden harvest. What are the facts? Although there is an urgent demand, at a high price, for a nice article, there is no supply to meet it. Surely this ought to stamp the "Wiley lie" in all its variations out of existence.

TAKE CARE OF THE BEES.

Owing to the extremely poor season many bees will be left to starve the coming winter. Somehow bee-keepers, and especially farmers, seem to think that if the bees cannot gather honey enough for their own support they ought to be left to starve. They do not seem to apply this rule to any other kind of stock. Many colonies could no doubt be saved by feeding a very few pounds of honey or sugar syrup. The would-be successful bee-keeper will see that the bees are supplied with sufficient stores for winter, and September is the time to do this. It is now late enough to tell to a certainty just what the bees are able to do for themselves, and any deficiency should be supplied.

During the early part of the month each hive should be weighed, and the weight of hive, bees and empty comb, deducted to determine the actual amount of honey in the hive, and the amount should be marked on it. The amount at this time should not be less than thirty pounds net, and forty pounds will be better, if they are to be wintered in a cellar, and it will require at least ten pounds more if they are to be left on the summer stands. For weighing I use a sort of tripod and scale beam, which works very nicely, and I can weigh them very rapidly. Of course all hives falling below the amount determined on for the support must be fed up to the required weight.

Great care must be used in doing this feeding, so as not to start the bees to robbing. I use a common fruit-can as an entrance feeder, and feed them only at night. The can should have a cover to it, or cloth may be tied over it, to keep the bees from getting into it. When feeding I place the front of the hive a little higher than the rear, so that the feed will run into the hive. For feed I should use good honey or sugar syrup made of sugar not below "C" grade. A mixture of honey and such syrup makes a very good feed for winter stores. I usually feed about half a pint to a colony each evening, by placing the feeders, which have a small hole punched near the bottom to allow the syrup to leak out, at the entrance. They should be removed early the next morning to prevent robbing, as sometimes the bees have not removed it all, or enough has collected under the can to attract robbers.

MOTH-TRAP HUMBUGS.

In looking through a late number of the *American Inventor*, I notice some one has invented an attachment for bee-hives to prevent moths from entering the hive, or rather a separate little chamber for the moth to lay their eggs. Of course it is predicted that "all bee-keepers" will soon realize the fact that they cannot live or keep bees successfully without these traps. What stuff—as if the moth was the difficulty, or in fact any serious evil at all, against which bee-keepers are contending! How long will these would-be benefactors keep throwing their money away on these worthless patents? If some of these smart ones would patent some sure way of having good honey seasons every year, I think bee-keepers would generally invest. But perhaps this inventor is not as green as he seems to be, and will yet do a good business in selling those worthless traps to gullable farmers who do not take the papers.

Another party has invented a hive with a wire gauze bottom, through which it is calculated the moth eggs will fall into a convenient pan, which can be removed and cleaned. Another feature of this hive is that it is made in two parts or chambers, divided perpendicularly, and it is claimed that the bees can be easily excluded from either part to permit an examination of the comb, etc. There is but a small opening between the two sections, over which a sort of button closes. I do not see how a person can readily exclude the bees from either part, or why it is necessary to do so. There is no suitable arrangement for securing honey, and the whole thing is awkward and impracticable.

The main idea of these inventors seems to be directed against the moth. Of course the practical apiarists are not caught by such traps, but I presume the inexperienced will continue to fall easy victims to these moth-trap "improvements."

SHADE FOR THE APIARY.

I do not understand how some good bee-keepers can advocate "no shade" for the apiary. I should think that the present summer, with its fearful heat, would soon convince them that if not absolutely necessary, a little shade is very nice for the keeper as well as the bees. In setting out trees for shading an apiary I should select such as do not grow very tall. such as cherry, plum, Siberian crab-apple and other fruit-bearing trees. If you plant such as the elm, maple, ash, etc., they soon become too tall, as swarms usually go to the highest branch and cause needless trouble in getting them down. It is also quite a job to trim such trees back and keep them low enough. Then, too, why not raise some fruit, as well as honey, in the apiary, and secure a nice shade at the same time?

BENEFITS OF A POOR SEASON.

The markets will be supplied with honey this year, and prices for a nice article will be high. I notice in a late number of the BEE JOURNAL some small sales being made at 20 and 25 cents per pound. If the present season will restore prices to a paying basis, it will be something gained to offset our very small crop.

The white clover in this section is about entirely burned out, and if we do not get abundant rains the prospects for another year are not very good. The clover plants will have to come from the seed, that will produce our next honey crop, and the outlook is not now favorable. The time, however, is coming when bee-keeping will again be on the boom.

Milan, Ill.

For the American Bee Journal.

Foundation in the Sections, etc.

C. THEILMANN.

There are two mistakes in my article on page 553. In the last paragraph of the first column, where it reads, "I prefer the Dadant extra thin foundation, 3¾x8½-inch sheets," should read, "3¾x18½ inches." The piece that I use for one section is just about 3¾x3 inches when fastened in the section.

The other error is two lines below the first error, where it reads thus: "I place another little table on a box or top of a hive, etc.," which should have read, "I place another little table, *or* a box, etc." I use one of my caps, or the top of a hive on top of the kitchen table, to make it convenient for my height.

Why I use so large a piece of foundation in a section is, so that I can obtain straighter combs than otherwise. It is a little more costly than small starters, but it more than repays double in getting more and nicer comb honey; and for the "fishbone" part, the bee-keepers themselves are to blame, by telling and writing about it. I have sold a good many thousands of pounds of comb honey, and I never heard anything of "fishbone" until the other day, when I sold a crate to a man (who heretofore was a subscriber of the AMERICAN BEE JOURNAL); he remarked something about "fishbony honey," when I asked him if he had not read about that in a bee-paper. "Well, you have got me now," he replied. "I don't think that I would have noticed any 'fishbone' if I had not read about it." This shows that some of our bee-keepers are going to extremes, and tell of it in the bee-papers, to the disgust of themselves and the fraternity. There can surely be no objections made if even whole sheets of the "extra thin" foundation is used in the sections, but it is unwise, and with no economy, to use any heavier foundation that 10 or 11 square feet to the pound.

For the past 4 days my bees have been very busy on fall flowers, but mainly on wild buckwheat. This is the first time in seventeen years that I will get any wild buckwheat honey to speak of. If the weather is good for another week, I will probably have about 2,000 lbs. of surplus from it. The wheat and barley stubble-fields are fairly covered with wild buckwheat, on which the bees are swarming all day.

One or two of my colonies have been swarming; that is, I have had 1 or 2 swarms nearly every day for the past 10 days, until yesterday. The hives are boiling over with bees. Only one year heretofore, I had 2 swarms as late as Aug. 23, which gathered about 75 pounds of honey each, that fall.

Theilmanton,⊶ Minn., Sept. 2, 1887.

. Gleanings.

Preparing Bees for Winter.

G. M. DOOLITTLE.

That prince among bee-keepers of twenty years ago, Elisha Gallup, once wrote that August and September were the months in which to prepare bees for winter; and after the experience of last fall and winter (which winter was the worst season for bees ever known in this locality, they being confined to their hives on the summer stands for five months without flight), I am ready to agree with Mr. Gallup exactly.

A year ago I commenced getting the bees ready in August, finishing in September, and I never had bees winter as well during a severe winter in all of my 18 years of experience. As I am again getting ready for next winter, I thought perhaps some would like to know how I did it. By beginning at this date to put all in readiness as far as possible, I give the bees a chance to get their stores for winter placed just where they wish them, so that, by the middle of October, they are ready to go into that quiescent state so conducive to the best results. Working along this line, I proceed as follows:

I go to each hive, open it, and carefully remove each comb, noting the amount of bees, age of queen, square inches of brood, and pounds of honey. The pounds of honey are found by weighing a few combs of varying fullness till the eye gets so trained that every comb can be counted off as to weight of honey with an accuracy approaching perfection, while the square inches of brood is gotten by measuring a few different-sized patches, when it is easy to estimate it afterward. The age of the queen is found by looking at the last year's record, if her wings are clipped; if not clipped, I know she is of the present year's rearing, as the wings of all my queens are clipped in fruit-bloom, and the amount of bees is known by observing their appearance on the combs. When I go over the hives in this way, I have some pieces of sections so that, as soon as a hive is closed, I can write down all about the condition of the inside. The piece of section may read something like this: "Aug. 20, 1887; 20 lbs. honey; 450 sq. inches brood. Bees, plenty, with good Italian queen, reared in '85."

This piece is now laid on top of the honey-board or quilt to the hive, and the cover put on, when two little flat stones are put on the cap to tell me that, inside that hive, they are short of honey, but have brood to spare. For instance, if the stone is at the front right-hand corner, it says, "short of honey;" if at the left back corner, it says, "brood to spare;" if at the right back corner, it says, "honey to spare;" and if at the left front corner, it says, "short of bees and brood;" while, if all is as I wish it for winter, a stone is placed in the center of the cover. In this way I make these little stones tell me, at a glance over the apiary, just what each hive contains, so that it is now but a few minutes' work to go over the yard and equalize all so that each is in a similar condition for winter, when the little stones are taken off and slipped under the bottom-board of the hive, where they belong when not in use.

If any are still short of stores (25 lbs. is what I allow each colony) after equalizing, I feed to make up the deficiency, generally using honey, as I prefer it to sugar stores after repeated trials.

As I write this out, It looks like a long, tedious job, and some will doubtless say that, rather than go through all this operation, they will simply lift the hives as heretofore, and "guess" that all have enough to carry them through. But to handle three or four hives is to become an expert; and if the readers will only try it, they will soon find that, after a little, they can count off honey, brood and bees, as fast as they can handle frames, which, together with the satisfaction of *knowing* just what each hive contains, will never allow them to go back to the "lifting-guessing" plan again.

UNITING NUCLEI—NEW PLAN.

Then I have also learned a new plan of uniting nuclei or queen-rearing colonies for winter, so that they can be ready early, instead of being only poorly fixed at best when left till October, as they usually are. It is as follows:

The latter part of August, select the strongest ones from the lot, or as many as you desire to winter, and then go to the other nuclei and take all but a little brood away, dividing the brood among those selected for winter. In doing this I take all the bees along (less the queen) that adhere to their frames. These frames of bees and brood are placed right in the selected hives, and so far I have not had a single bee or queen killed. The bees hatching from this brood are the ones which go through the winter, and I like uniting in the brood form much better than in the bee form. The bees left in the now small nuclei are used up, and mostly die of old age by the time I am through queen-rearing for the season.

Borodino,⊙ N. Y.

For the American Bee Journal.

Bone Ashes and Tartaric Acid.

JESSE OREN, M. D.

I will be thankful to Prof. N. W. McLain, should he be pleased to give his reason, through the AMERICAN BEE JOURNAL, for mixing bone-flour with the rye flour," as a stimulant in brood-rearing. What is there in bone ashes that should give it precedent over other substitutes? Who is the author of the discovery, and when was it made? What induced the trial? I cannot go and see Mr. McLain, and interrogate him on the matter, and hence request him to surmise the rest of this possible article, and give answers accordingly.

Again, I am at a loss to know why it is that tartaric acid is mixed with honey when preparing feed for winter use. Many of our best bee-keepers do it, and doubtless many of them have reasons to give. I am at a loss to give theoretical reasons for this practice. Honey may sour, and might require an alkaline to neutralize the acid, etc. It will not be satisfactory to say that bees live through the winter when their feed is so adulterated, since that argument would prove too much and could not be maintained. We are so apt to copy success, and cry out, "after which, on account of which." All the M. D.'s understand this well. Men live after all sorts of treatment. So do bees.

I feel like calling on Mr. Heddon to go to the bottom of the acid treatment, and so put steps under my feet while I am trying to climb the ladder. I will accept theory—the "pollen theory"—if no demonstrated facts exist for this sour-honey winter feed.

Laporte City,⊶ Iowa.

[Will Messrs. McLain and Heddon kindly reply to the above article?—ED.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Sept. 15.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Sept. 20, 21.—Cedar Valley, at Waterloo, Iowa.
H. E. Hubbard, Sec., La Porte City, Iowa.

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Pleurisy-Root and Sweet Clover.—Thos. Ellicott, Fentonville,♂ Mich., on Sept. 1, 1887, writes:

I send you a small bunch of the blossoms which I would like to have named. I do not know how I will succeed in making this plant grow, as it seems to have only one root which goes so deep into the ground that I cannot get the whole of it. I have found a few seed-pods which I will start early in the hot-house. It has been a bad year for bees in this locality; mine have done the best of any that I know of, and I will not get over 1,000 pounds of surplus honey, and 21 swarms. The honey brings 20 cents per pound. I believe sweet clover is the best honey-plant there is for this locality. Bees have not failed to work on it any time during the five years that I have had it under cultivation. I hope to have more growing next year than I have ever had. I find I can get a splendid growth by setting plants in the fall or spring. I set the plants 2 feet apart, and put in seed between them to grow for the next year. It never blossoms here the first year.

[The flower mentioned in the first part of the above letter is "pleurisy root" (*asclepias tuberosa*). It is excellent for honey, the bees will leave every other plant for it. It is a perennial; the top dies every year, but the root lives until it dies of old age. It grows about 2 feet high, on any soil. The seed can be sown like cabbage-seed.—Ed.]

Board to Retain Heat, etc.—A. P. Fletcher, Burlington,↜Vt., says:

On page 516, Dr. G. L. Tinker says: "A thin board is the best thing to retain the heat in out-door wintering." How thick should the board be? Will ⅛, ¼ or ½ inch thick, be as good as thicker? Should the board be raised a little from the brood-chamber? What kind of lumber is best for that board? I suppose soft, white pine. When a question has been under discussion as long as the question of naming honey out of the comb has, and found no definite or satisfactory solution, it would seem as if the old name is best. The discussion about Ivar S. Young's remark, in regard to visiting some of the "best apiarists in *America*," reminds me of the young man in Canada, who asked me, "Where is Vermont? Is it in N. Y., Mass., or where?"

Honey-Separator, etc.—H. S. Cotrael, Otto,♀N. Y., writes:

If it is desirable to change the name of what is called "extracted honey," would it not be well to first find a new name for the "honey extractor?" Believing that the difficulty of finding an acceptable name for liquid, extricated, exuded, emitted, centrifugal, thrashed, thrown, loose honey would be somewhat lessened by so doing, I would suggest "honey separator," and then we could call the honey separated from the comb, "honey," or "honey out of the comb," or perhaps separated honey.

[It is neither desirable nor necessary to re-name the honey-extractor.—Ed.]

Dry Season—Fall Flowers.—Geo. Poindexter, Kenney,⊙ Ill., on Sept. 3, 1887, writes:

From 240 colonies of bees I have obtained 300 lbs. of comb honey. The dry weather has continued so long here that white clover has entirely disappeared, except in some sheltered places where Old Sol's rays failed to reach. On June 1, while fishing in a stream here, I noticed the ants with their houses at the verge of the water; I became alarmed, for I did not think those little bugs would take the chances of having their young swept down stream by a freshet, and now I have realized the prediction of the ants. Some fall flowers are opening here, such as goldenrod, Spanish-needle and boneset. There is plenty of buckwheat sowed, but not in bloom yet.

Suggestions on Bee-Legislation.—A. Durward, San Marcos,⊙ Texas, writes as follows:

I have read Mr. Shearman's article on page 537, in which he says: "Now let us hear from others." I endorse clauses 1, 2 and 3 of his article, but I do not see that anyone could be justly prevented from keeping even black bees on his own premises, as it might be claimed that they were the best breed. As regards clause 6, I do not see why the bees should not be assessed as well as the queen. Finally, I would add a clause, to the effect that bees be made an exception to the usual laws respecting domestic animals, viz.: That their owner shall not be held responsible for any damage they may do away from his premises, such as troubling cider-makers and grocerymen, robbing other bees, etc.; and that it be made an offense, punishable by proper and heavy penalties, for any person to intentionally trap or destroy honey-bees away from their hives or other lodging places, in any considerable numbers. The justice of this will be apparent to all intelligent bee-men, I think. But it might be difficult to make the majority of any legislature understand it. I think something like the above is badly needed. When in Wisconsin, I came very nearly having trouble with an ignoramus of a bee-keeper, because my bees, well wintered, robbed his every spring that were dwindled down and almost dead anyway. He thought that I ought to make it right with him.

"Honey" vs. Extracted Honey.—N. B. Powers, Lansingburg,○→ N. Y., writes:

I have noticed the articles in regard to the name of the sweet juice collected by bees, called honey, and I have wondered why persons cannot be content with that simple name. It is not necessary to state how the liquid was taken from the comb. If we offer a person, to buy or taste, of the product of the bee, we should say, "Will you buy or taste of the honey in the comb?" Using the word "extracted" as connected with the word honey, is like saying, "I have eaten the honey up, or have eaten it down," up and down being a superfluity—it shows a lack of proper training in speaking or writing. Probably in speaking the work "honey," we are understood ninety times in a hundred as meaning the article itself, and not in connection with the comb. It is the honey we desire so much, and not the wax. Extracted honey may be adulterated, therefore labels for the pure article should say "pure honey," extracted by John Smith, or any other person.

"Extracted Honey" Good Enough.—Henry Fisher, Urmeyville,⊙Ind., on Aug. 25, 1887, says:

Bees have done but little since July 1, on account of dry weather. Why so much clamor about a new name for extracted honey? The word "extracted" means exactly what it says, and I am satisfied that we can find no better name for honey out of the comb, than "extracted honey." It is a name good enough, and *why* not let well enough alone? After several years of hard work to teach consumers what extracted honey is, we would simply be making ourselves more trouble to change to some new name, which will only cause confusion, and bring a fresh harvest of explanations, and we be none the gainer in the end. I move that *we* drop the subject, and let the editor of the American Bee Journal select the new name, when he finds one that is better than the old—"extracted."

[No! The Convention in November will give their decision.—Ed.]

Bee-Keeping in Florida.—Dr. J. S. McAllister, Tarpon Springs,♀ Fla., on Sept. 2, 1887, writes :

I have not been in Volusia county yet, but I have been down the interior of this State, a little below the 28 parallel, and I saw a few apiaries, and all that I have seen as yet are not very encouraging for any one to engage in bee-keeping here. But there are points in the state that I have not yet visited, where I understand that bees do well ; but my advice would be, to look the field over before going to much expense in bee-culture in Florida. There were 75 colonies brought to this place some two years ago, by an expert, that have never half paid running expenses.

Getting no Honey.—R. J. Mathews, Riverton,⊸ Miss., on Sept. 1, 1887, says :

Our bees are getting no honey, and have not for 8 weeks. Prospects are poor for a fall crop. One of my neighbors has lost about 40 colonies, and has to feed his bees.

Bug-Juice.—Jos. H. Wood, Lovington,⊙ Ill., on Sept. 5, 1887, writes :

I send you a sample of honey that my bees are bringing in—"honey dew" I guess. Will it do for them to winter on? As this question interests all the bee-keepers in this part of the country, please answer in the AMERICAN BEE JOURNAL. If it will not do to let them have it, in what way would we get rid of it? All the bees are short of stores.

[It is bug-juice, sometimes miscalled "honey-dew." If you *can* furnish the bees with good honey or sugar syrup, do so ; if not, they may as well risk the bug-juice as to die of starvation. You can easily take it away from the bees, by the honey extractor.—ED.]

Some Results of the Season.—O. R. Goodno, Carson City,⊙ Mich., on Sept. 5, 1887, writes :

I have increased my apiary from 100 colonies in the spring, to 144 now, with a full summer's work put in, and I have secured all of 1,000 lbs. of comb honey in 1-lb. sections. When you consider that that amount is more than I can learn of in all the surrounding county, it is indeed a great amount. I do not know of as much comb honey within ten miles, as I have secured. Mr. H. M. Roop, of Carson City, has had 48 colonies this season, but has not a pound of surplus honey. Mr. G. M. Bosney, of this place, with 140 colonies, procured nearly as much honey as myself, but fooled it away at 10 and 12 cents per lb. W. A. Buck, of Crystal, has 50 colonies, and has not a pound of surplus. Mr. Stevens, of Bushnell, has a quantity of bees with no surplus. Mr. Robert North, of Palo, 10 miles away, with about the same number of colonies as I have, has no surplus. Mr. Chas. Cross, of Carson City, 4 miles from here, has 75 or 80 colonies, and supposed he had at least 1,000 lbs.; he has scraped it together and finds 12 crates of 28-lb. sections each, all he has. This is a fair sample of the way the results of the season run so far as I can hear. I have 42 crates with 28 sections each, but not filled as full as they should be ; they will average less than 25 lbs. each, and are in excellent condition. The colonies in the yard I think are in first-class condition, except those hived after July 1, 8 of which are in Heddon hives, and those I am feeding every night. Aside from those I think there is plenty of honey in the yard to winter upon, by equalizing the supply.

Heart's-Ease and Sweet Clover.—F.L.Merrick, Waldron,⟜ Ill., on Sept. 5. 1887, says :

I send you two plants or weeds. The one with pink blossoms is here called heart's-ease ; the other, that blossoms in June, is known here as sweet clover. The latter dried up here in July. The former is now in full blossom, and bees are working on it lively. Please give me the names to each.

[The botanical name of the sweet clover is *melilotus alba*, and the heart's-ease is *viola tricolor*. Both are excellent for honey.—ED.]

Linwood Bee-Keepers' Convention.—Mr. A. C. Sanford, the President, of Onuo,⊸ Wis, on Sept. 5, 1887, writes as follows :

The Linwood Bee-Keepers' Association met on Sept. 1, 1887, at Spring Valley, Wis. Those present reported 454 colonies of bees, and a light crop of honey, being but 6,400 lbs. of comb honey and 4,450 lbs. of extracted. Our Society is small, but it is growing. It is about 2 years old, and we have excellent meetings. We have some real enthusiastic members, and have many more in this vicinity that should join us, and they will be the sufferers this time, for if they had belonged to the Society, and taken the AMERICAN BEE JOURNAL they would have been informed about the honey market, and would have kept their honey out of the early market, and could then have obtained 18 or 20 cts. per lb., instead of from 10 to 15 cts.

Kissing Bees.—W. H. Coleman, an *attache* of the *Country Gentleman*, writes as follows from Albany,⟜ N. Y., on Sept. 2, 1887 :

EDITOR AMERICAN BEE JOURNAL :—I have followed the "bee-kissing" controversy with some interest, as I reported the Albany Convention proceedings for the *Country Gentleman* and so far as I have seen, the paragraph relating to Mrs. Thomas did not appear elsewhere, although you appear to have met it twisted into an extract from a "Woman's Convention" report. As it was my first report of a "bee" convention, and done in ordinary long hand (brief notes afterwards written out) I feared that I had made some blunder either in statement or figures, and was quite relieved to find that Mrs. Thomas sustained me, as you also did, earlier in the season, in copying a good part of the report with, I think, only one trifling correction. But allow me to correct one phrase in your remarks on Mrs. Thomas' essay—applying the "two years ago" to the reporter's account. If you will look at the report you will find the "two years" accurs in the statement about Miss Creed's success —not Mrs. Thomas'.

[We cheerfully give the above correction, and hope this will explain matters to the satisfaction of all.—ED.]

Good Crops—Sundry Questions.—Wm. Cleary, Algona,♂ Iowa, on Aug. 29, 1887, writes :

In northwestern Iowa we have had plenty of rain since June 15, and crops of every kind were never better. May and the first part of June were too dry for clover, so that when the basswood came into bloom, bees had no stores, but they then filled up the brood-chamber and some in the supers, the best colonies filling one and starting the second, and they have been storing some honey every week since. Last week it was too cold and wet, so they did not store much. I notice that when the wind is in the northeast, or east, they do not go out much. I keep one hive on scales and it gained 4 lbs. on Sunday and Monday, from buckwheat. They have not worked any on goldenrod for some cause, I know not what. I have 35 colonies and had a large swarm on Aug. 21, and another issued on Aug. 27, which went to the woods. I never saw bees breed up so strong so late. I have one colony that is filling the third super, but many were so weak in the spring that it has taken all summer for them to build up, aud some were queenless and I had to give them brood three and four times before they got a queen to work. I do not know the cause, only I suppose the young queens were lost on their wedding trip. Please answer the following questions :

1. Will it pay to extract honey if it will bring from 12½ to 15 cts. per lb., from the body of hives, and feed sugar at 7 cts. per lb.?
2. What per cent of the honey gathered does California produce ? Some say California controls the price.
3. Does sweet clover live from year to year, or does it die after going to seed ?
4. Does hemp produce any honey ? My bees worked on it some days from morning till night, and thicker than on any thing else, unless it is sweet clover. I know they get lots of pollen from it.
5. Do bees gather any honey from corn bloom ?

6. Is old comb of much advantage to swarms? or can they build about so much comb as well as not? I noticed where I put in part old combs, they do not build any new comb until they get all the old comb full.

[1. Yes.

2. Probably one-tenth. The freight charges under the Inter-State Commission will not allow California honey to compete with Eastern honey any longer.

3. It dies root and branch. In order to have it continuous on the same ground, the seed must be sown two years running, for it does not bloom until the second season.

4. They obtain pollen, and also a little honey from hemp.

5. Several apiarists claim that corn yields honey, but it is of a peculiar flavor.

6. Combs are valuable to swarms, especially in the midst of a honey-flow.—ED.]

Convention Notices.

☞ The bee-keepers of Connecticut will meet in Room 50 of the State House, in Hartford, Ct., on Sept. 24, 1887, at 11 a.m., for the purpose of organizing a State bee-keepers' society. All are invited to come and "talk bees."

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.

J. T. CONNLEY, *Sec.*

☞ The Hardin County Bee-Keepers' Association will hold a meeting on the Fair Grounds at Eldora, Iowa, on the 3rd day of the Fair, Wednesday, Sept. 15, 1887, at 1 p.m. All bee-keepers are requested to be present, and all interested are cordially invited. J. W. BUCHANAN, *Sec.*

CHANGE OF TIME.—The officers of the Cedar Valley Bee-Keepers' Association have postponed the time of the next meeting, on account of its clashing with the State bee-keepers' meeting. The meeting of the Cedar Valley Bee-Keepers' Association will be held at Waterloo, Iowa, on Sept. 20 and 21, 1887.

H. E. HUBBARD, *Sec.*, Laporte City, Iowa.

☞ The Union Bee-Keepers' Association of Western Iowa will hold their annual picnic at the apiary of Thomas Chantry, near Casey, Iowa, on Sept. 15, 1887. All invited.

H. D. LENOCKER, *Sec.*, Dexter, Iowa.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangaments have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

W. Z. HUTCHINSON, *Sec.*

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

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Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

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HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2 00.

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The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged.

The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—We quote : White comb in 1-lb. sections, 18c. No call for dark comb. Offerings are small of all kinds.

BEESWAX,—23c. R. A. BURNETT,
Sept. 7. 161 South Water St.

DETROIT.

HONEY.—New comb is very scarce, and quoted at 17@18c. per lb.

BEESWAX.—23c.
Aug. 17. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.: 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.

BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 20@22c.; 2-lb. sections, 18@20c. Short crop indicated.

BEESWAX.—25 cts. per lb.
Aug. 25. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white liquid, 5¼@5¾c.; amber colored and candied, 4¼@5c.—White to extra white comb, 12@15c.; amber, 8@11c. Receipts light and prices firm.

BEESWAX.—17@21c.
Sept. 3. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5¾c.; light amber, 4½@5c.; amber and candied, 4¼@4¾c. Receipts light; poor crop.

BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-bs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.

BEESWAX.—25c.
Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 16@18c.; the same in 2-lbs., 13@14c.; fair to good 1-lbs., 13@15c., and 2-lbs., 10@12c. Extracted white clover, in kegs and barrels, 7@8c.

BEESWAX.—21@22c.
McCAUL & HILDRETH BROS.,
Aug. 24. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 15c.; dark 2-lbs., 12@13c. choice white 1-lbs., 18c.; dark 1-lbs., 13@14c. Calif. white 2-lbs., 13 to 15c. Extracted, new choice white, 8@10c.; dark, 5@8c.; Calif. white, 8c.; amber, 6@7c. Prices firm.

BEESWAX.—20 to 22c.
ep. 7. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c., 2-lbs., 15@16c.; dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.

BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS,CLOON & CO., cor 4th&Walnut

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.

BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Comb honey has been sold out perhaps better than ever before at this time, only remnants of dark honey being left. Choice white would readily bring 15c. in a jobbing way.

BEESWAX.—Fair demand,—20@22c. per lb. for good to choice yellow.
Aug. 19. C.F.MUTH & SON.Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed 17@18c.; fancy 2-pounds., glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.: 2-lbs glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@6c. Demand large.
Aug. 30. F. G. STROHMEYER & CO., 122 Water St.

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We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

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Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Hedden's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this : Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discussion—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

◆

Will you Exhibit at the Fair? If so, we will supply you all the copies of the BEE JOURNAL that you may desire to distribute to the bee-keepers you may meet there. We also have colored posters to put up over exhibits of honey, wax, supplies, etc. Send for them early, so as to be sure to have them on hand in time. They will cost you nothing, but we should like to have you get up a club for the BEE JOURNAL, if you can possibly do so.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Advertisements.

Beautiful Italian Queens.

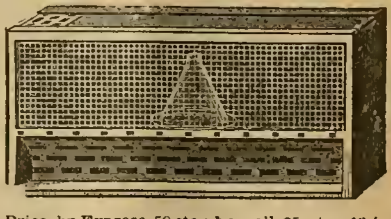
J. F. WOOD wishes to inform his former friends and patrons, that he is now filling orders promptly for those GOLDEN ITALIAN QUEENS that have given satisfaction to every customer for the past two seasons—at the low price of $8.00 per doz.; single Queen, 75 cts. *I use no lamp-nursery.*
☞ Do not fail to send for descriptive Circular; if you have not my 1886 Circular, send for that too.

JAMES F. WOOD,
29Dtf North Prescott, Mass.

PRICES REDUCED!

ONE Warranted Queen.............. $ 75
Six " Queens 4.00
Two dozen " " 15.00
Select Tested Queen.................... 1.50
☞ Orders filled by return mail.
Address, J. T. WILSON,
31Dtf NICHOLASVILLE, KY.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

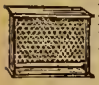
13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

BY RETURN MAIL!

SIX Warranted Italian Queens	$5 00
Fourteen Warranted Italian Queens	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

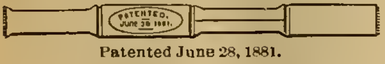
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.


PATENTED. JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

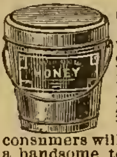
33A26t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent by mail for 10 cents.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

FOLDING BOXES.

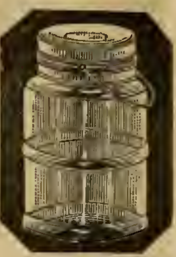
Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 *oz.* **Glass Jars** ***$5.25*** *per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case, Send for Catalogue.*

A. O. CRAWFORD,
Box 428. South Weymouth, Mass.
21D10t

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H.Martin, Hartford, N.Y.
6W(3tm)40t

GLASS PAILS



FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey,	per dozen,	.....	**$1.60**
" 2 pounds	"	"	**2.00**
" 3 "	"	"	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.

FINE ITALIAN QUEENS, reared from the best, selected, tested imported mother, 75 cents each, by **return mail.**
35Atf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S. etc., and published by John Huckle, King's Langley, Herts, England.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Sept. 21, 1887. No. 38.

Unite a Queenless Colony with one having a good queen. Or if a queen is getting old or otherwise useless, replace her now. If you have no extra queen, it will pay to procure one to supersede the failing queen, for she may die during the winter and the colony perish in the spring for want of a queen.

◆

Ancient Honey.—An exchange says that honey was a domestic manufacture of great importance before the introduction of cane sugar, and in those countries where cane sugar is scarce, the preparation of honey is very extensively carried on. It is not uncommon for a peasant of the Ukrine to possess 500 or more hives, and for a parish priest in Spain to have 5,000 hives in his apiary.

◆

Concerning the Observation Hives, Huber remarks as follows:

> Some persons may imagine, perhaps, that glass hives of four sides, are sufficiently adapted for exposing the construction of combs; but their architecture is always concealed from our view by clusters of bees, amidst which, and in darkness, the work goes on.

Huber never saw our new uni-comb glass hives for two reasons—first, because he was blind, and next because they did not then exist. These come nearer to it than did any in his day.

◆

"The Practical Bee-Keeper: A compendium of Rational Bee-Keeping with movable and immovable Honey-Combs," is the title of a German bee-book which we have received from its author, C. J. H. Gravenhorst, of Glowen, Prussia, editor of the *Deutsche illustrierte Bienenzeitung*. The book contains nearly 300 pages, is beautifully printed on excellent paper, and has over 100 illustrations, among them being the faces of many eminent German apiarists. As it so thoroughly and practically covers the whole ground of bee-keeping, it no doubt will receive a hearty welcome by all who read the German language. Its cost is 4 marks (one dollar) per copy.

Among the Many Uses for honey we may mention the following:

It is used in the manufacture of Confectionery, Cakes and Pastry, Soda-water, Mead and Metheglin, Jellies and Jams, Honey-Wines and Liquors, Liquorice, Honey Egg-Foam, and Honey-Vinegar, Medicinal preparations, Syrups, Ointments and Salves, Pop-corn Balls and Harvest Drinks.

It is also used in canning and preserving fruit in its natural state, curing hams and meat of various kinds.

In making printers'-rollers it forms a principal ingredient, also in the manufacture of beer, ale and tobacco, it holds a prominent place.

In making comb foundation it is used considerably.

In compounding medicines of all kinds, it has for ages held an important place; while as an article of food it has been esteemed as one of the principal delicacies for many centuries.

It will be well for all honey-producers to see if they cannot find out *new* avenues for the use of honey. In this way we can prevent a decline in prices when the future honey crops will be large. This is worth thinking about.

◆

Seasonable Hints.—J. M. B., in the Indiana *Farmer*, gives the following as hints to bee-keepers who are apt to become forgetful of the wants of the bees. He says:

> Bee-keepers should begin now, if they have neglected to do so, to prepare their bees for winter. This is the season to guard against robbers. The entrances to all colonies, the strong as well as the weak, should be contracted to better enable them to protect their stores. Strong colonies having unsealed stores are in almost as much danger of being attacked by robbers as those weak in numbers. Avoid opening the hives as much as possible except at evening after the bees are done flying.
>
> As the past season has been poor for honey, there will have to be considerable uniting and feeding done this fall, which will require the greatest care to prevent robbing. It is not necessary to open each colony to know if they have honey enough to winter them. My plan is to lift each hive, marking those that need feeding. Should you have more light, weak colonies than you care to feed and risk in wintering, select those that have their hives full of combs, are strongest, and have young prolific queens, and commence feeding at once.
>
> Those that are to be united should if possible be moved gradually up to those that are to receive them, and after their brood has all hatched, be united. Select some cool evening when no bees are flying to do your work, by shaking and brushing the bees down at the entrance, letting them run in.
>
> If you have any choice of queens, kill the poorer ones of course, otherwise the bees will take care of that part of the work by killing one of them. Continue to run them in until the hive is full; have no fears of getting them too strong. You will find these same colonies to be weak enough next spring. Feed them until judging by their weight, they seem to say as the old German did, when asked to give a receipt for money paid him, "Yah—I ish full, I wants no more."
>
> The empty hives and combs should be put away under shelter for next season's use.

◆

The Honey Consumer is the name of a neat 45-page pamphlet on our desk, by Max Pauly, of Zurich, Switzerland. It contains many excellent recipes for using honey in cooking, for preserving fruit, and in making honey vinegar, mead, wine, etc.; also the uses of honey as a medicine. Its price is 70 cents per copy.

Crops in General.—In *Vick's Magazine* for September we find this statement of the result of the late drouth:

> The heat and the dry weather the past summer have affected unfavorably most of the cultivated crops of this country. It has been a remarkable season on account of the high temperature which has prevailed, with but few intermissions, during the three months that have just passed. Over a large region of territory, from the central part of New York State westward to the Rocky Mountains, there has been for the same period a deficiency of rain, this deficiency being greatest in the States lying on the Mississippi River and westward, Illinois, Wisconsin, Minnesota, Iowa, Dakota, Nebraska and Kansas, and the region beyond have suffered most severely, but Michigan, Indiana, Ohio and the western half of this State have had their crops badly shortened by the same causes. An additional source of loss has resulted from the depredations of insects, favored by heat and dryness, which have bred with great rapidity. A short harvest of wheat, hay, grain and potatoes will be general, except in the Eastern and some of the other Atlantic States.

◆

Hold Back the Honey.—If you want to maintain the advancing prices for honey—do not ship a pound for 5 or 6 weeks to come. Just read the following from Boston honey merchants:

> Honey being so short, we thought 20 and 22 cts. per pound low enough to sell to the jobbing and retail trade, and we have sold none for less than 20 cts., except one lot of odd size comb.
>
> We wish to second what you say editorially to the producers, in the AMERICAN BEE JOURNAL, to hold honey back for a month or two; and in that way good prices can be maintained right through the season. We are receiving a good many letters from all over the country, asking if we can sell their honey at prices quoted in the AMERICAN BEE JOURNAL, and we write them that at present we cannot advise shipment here, for if we should have it all come here, we could not sell for over 15 cts. per pound.

◆

The Display at the St. Joseph, Mo., Exposition, in the Apiarian Department, was one of the finest we ever saw, and speaks well for the energy and perseverance of the Managers of the Fair, who were ably assisted by Mr. J. G. Graham, the Superintendent of the Apiarian Department.

The principal exhibitors were Messrs. E. T. Abbott, W. Z. Hutchinson, Elvin S. Armstrong, F. G. Hopkins, Sr., Wm. Kimball, J. G. Graham, and F. G. Hopkins, Jr., and included the finest exhibit of extracted and comb honey we have seen for several years.

In the line of edibles, two good exhibits were made by Mrs. George Doles and Miss Dora Abbott. These included cakes of many varieties, jams, jellies, cookies, snaps, fruit of various kinds preserved in honey, etc. The premiums amounted to $267.00.

Of course we had a very pleasant time with the many apiarists attending the Inter-State Exposition. They are generally enterprising and progressive.

To Messrs. F. G. Hopkins (father and son) we are indebted for pleasant drives all over the city, and among the adjacent hills, which are filled with residences—many of them very fine and luxurious.

◆

The Madison County Fair will be held at Madison, Nebr., on Sept. 22, 23 and 24, 1887. Cash premiums for exhibits of bees and honey are offered. A premium list may be had by addressing the secretary, A. J. Thatch, Madison, Nebr.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Worker-Bee in a Queen-Cell.

Query 471.—I found what appeared to be an inferior worker-bee dead in a queen-cell. Has any one noticed anything like it before?—Mrs. S. B. R.

Yes.—W. Z. HUTCHINSON.

I do not think of such a case at present.—H. D. CUTTING.

Yes. Take no notice of it, but go on about the practical work of the apiary.—JAMES HEDDON.

I have. Such bees are often found in inferior cells started with larvæ over three days old; and sometimes a bee will enter a queen-cell after the queen crawls out, and the cap falls back and the bees close it in.—J. P. H. BROWN.

Yes, a worker sometimes gets into a queen-cell after the queen is hatched and is sealed up. Or, a poor queen, after being dead some time, might look like an inferior worker.—C. C. MILLER.

Yes, it is often the case that a worker-bee crawls into a queen-cell at about the time the queen leaves the cell, when the lid is pushed back and the worker sealed up a prisoner, death being the result.—G. M. DOOLITTLE.

I have often found dead worker-bees in queen-cells. They sometimes go in after royal food, stay too long, and are then sealed up. This is usually just after a young queen has emerged.—G. L. TINKER.

Probably the bee found was in reality an immature queen. I have never found a worker in a queen-cell, while I have often found a dead drone in one.—J. E. POND.

Yes, I have often seen the like. When a young queen cuts out of her cell, she does not always cut the cap entirely around, and the lid-shaped cap may spring back and imprison any worker-bee that may chance to enter the cell to lick up the surplus jelly at the base of the cell. Stranger still, I have known the bees to re-seal the cell, thus entombing the unfortunate victim beyond remedy.—G. W. DEMAREE.

Most likely a worker-bee was enticed into an empty queen-cell, which might have closed, and even been sealed up by the bees. Or, it might have been a poor queen, which, when dead, you may have mistaken for a worker-bee.—THE EDITOR.

Securing Gilt-Edged Honey.

Query 472.—Can we secure gilt edged honey in sections at the side, or on top, of old brood-combs?—Wm. M., Iowa.

Yes.—C. C. MILLER.

You can with care.—J. P. H. BROWN.

Yes, with a good honey-flow.—G. M. DOOLITTLE.

I have taken from the top of old brood-combs very fine comb honey.—H. D. CUTTING.

As a rule, we cannot; at least in my own experience. My bees insist on capping sections the color of the combs by their sides.—J. E. POND.

It is difficult to get sections entirely filled and sealed at the side. Old brood-combs are fit only for extracted honey.—DADANT & SON.

We can by "tiering up," as the finished sections are then so far from the brood-combs that the newly-finished combs remain unsoiled.—W. Z. HUTCHINSON.

Yes, if you will use the slat, break-joint honey-board which I have several times described, and which I invented 8 or 10 years ago.—JAMES HEDDON.

Yes, though sometimes the sections immediately following the old comb will be too dark. I have never noticed this trouble when they were placed above.—A. J. COOK.

I doubt if the cleanest and nicest comb honey can be had at the *sides* of old combs; but I can secure the very finest honey above such combs, by putting a perforated excluder between the top of the brood-combs and the bottom of the surplus case.—G. W. DEMAREE.

Not if very near old combs, especially at the sides of the hive. In fact, no comb honey, if left until it is sealed, can be obtained at the sides of new brood-combs without being more or less soiled. This is because the field workers that bring in all the dirt, congregate at night on the sides and bottom of the hives.—G. L. TINKER.

Yes, if the honey-flow is abundant; but not otherwise.—THE EDITOR.

Hives with Beveled Joints.

Query 473.—Are beveled joints in hives, to keep out the rain, of any advantage?—H.

I use a square joint.—G. M. DOOLITTLE.

No. I prefer no bevel or rabbet whatever.—A. J. COOK.

Not with any hive I use. I prefer a rabbeted joint.—H. D. CUTTING.

I consider them a disadvantage. Rabbeted joints are preferable.—J. P. H. BROWN.

Any way to keep the rain out of the hives is good.—DADANT & SON.

Not any whatever, with me, and in some respects they are radically a disadvantage.—JAMES HEDDON.

I think not. No rain ever gets into my hives having square joints.—G. L. TINKER.

They might be if no bees were kept in the hives, but it makes but little difference what the joint is when the hives are occupied by bees, as they soon "plug" all cracks.—W. Z. HUTCHINSON.

They would be of no advantage in my apiary to keep out rain, and a very great disadvantage when manipulating the hive. I prefer the square joint all the time, and for all purposes.—G. W. DEMAREE.

In my judgment there are no advantages to balance the disadvantages. I have never had any trouble keeping out rain with square joints.—C. C. MILLER.

I so consider them; others do not; I think, however, they are so considered by the majority, judging from the opinions expressed in the discussions had upon the subject. If the old style Langstroth hive is used, they are not needed, and are only necessary where the covers or upper stories fit flush.—J. E. POND.

No; square or rabbeted joints are preferable.—THE EDITOR.

Convention Notices.

☞ The Eastern Indiana Bee-Keepers' Association will meet at Richmond, Ind., on Oct. 5, 1887.

M. G. REYNOLDS, *Sec.*

☞ The bee-keepers of Connecticut will meet in Room 50 of the State House, in Hartford, Ct., on Sept. 24, 1887, at 11 a.m., for the purpose of organizing a State bee-keepers' society. All are invited to come and "talk bees."

☞ The Pan-Handle Bee-Keepers' Association will hold its next meeting in the K. of P. Hall, No. 1138 Main St., Wheeling, W. Va., on Oct. 26 and 27, 1887. All bee-keepers are cordially invited.

W. L. KINSEY, *Sec.*

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.

J. T. CONNLEY, *Sec.*

☞ The fifth annnal meeting and basket picnic of the Progressive Bee-Keepers' Association will be held on Thursday, Sept. 22, 1887, at "Mountain Apiary," the residence of Mr. John R. Reed, near Chester X Roads, Geauga Co., Ohio. A cordial invitation is extended to all who are interested in bee-culture to be present. A full attendance of the members of the Association is desired.

MISS DEMA BENNETT, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

W. Z. HUTCHINSON, *Sec.*

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⟜ east; ⊸ west; and this ♂ northeast; ↖ northwest; ↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Legal and Moral Checks in Bee-Keeping

WM. F. CLARKE.

I find little to dissent from in Mr. Foster's article on page 535. He summarizes the points of agreement between us exceedingly well, and accepts my position that, "respect for the rights of others and self-interest are the best checks" to overcrowding of bee-fields. I readily admit "that these checks sometimes fails to operate." So do legal ones. Everything human is imperfect.

Mr. Foster states very clearly a case in which a bee-keeper may desire and be entitled to control of territory on other grounds than that of prior occupancy, and says, "it seems impracticable" for me to allow this point. But this is not so "impracticable" as it seems. I "allow" it, here and now. If I have written anything inconsistent with such an admission, I withdraw and retract. I can do so without shaking my position in the least. For this case is one to which a legal check cannot be applied. A farmer who owned only a few "bee-gums" would not want a monopoly of the territory, and would have no right to it, unless prepared to stock it. A just law could not endorse and protect any "dog-in-the-manger" policy. I have argued that prior occupancy, giving a sort of pre-emptive right, is the only ground on which law could recognize a claim to exclusive possession of territory. It would be monstrous if a specialist could come into a neighborhood and say to "one or two farmers" owning a few "bee-gums," "Take your bees out of this,

'I am monarch of all I survey,
My right there is none to dispute,'

this bee-territory is mine." Moreover it would be entirely unnecessary. For, "one or two farmers who owned a few 'bee-gums,'" would only amount to a "fly on my horn" rivalry, beneath his notice.

Farmers have, before now, gone into other lines of business beside bee-keeping and given them up in disgust, when "a well-managed monopoly would have saved them hundreds of dollars." Hop-growing is one of them, and others might be named. Citizens of a free country would resent legislation forbidding them to go into any line of business at which they were likely to lose money. To start a business without a knowledge of it, argues a want of common-sense. Law cannot supply that lack. The President of a certain theological college used to say to every new class of students, "Gentlemen, if you lack knowledge we can supply you; but if you haven't common-sense, it is of no use your coming here." There is no need of any human legislation in favor of the "survival of the fittest." The "higher law" everywhere in force infallibly secures that, as a matter of fact, what Mr. Foster desiderates, is actually realized. He says: "The utilization of our honey resources should be intrusted to those who are best qualified to accomplish it, without regard to priority." So they are, and so they will be, under the operation of natural forces and independently of legislation. Sooner or later he who lacks qualification takes a back seat, and "those best fitted" come to the front.

Mr. J. O. Shearman, on page 537, rushes into the arena of discussion in a manner calculated to over-awe a timid person. He claims that "no one has come to any conclusion what is best to be *done*." I have been fluent, that is all. So is a Billingsgate fish-wife, or a quack-medicine peddler. He says that I have "shoved Mr. Foster aside," a soft impeachment to which I plead "not guilty." If I have done any thing so uncivil as that, I most humbly beg pardon. He insists that I propounded nothing. What I had to say was mere "fluency," only that and nothing more. Mr. Foster, he claims did at least "break the ice." He proposed "something to be done, even allowing its possible impracticability." Well, now, that is harder on Mr. Foster than on me. I am patted on the back for my "fluency," and Mr. Foster for his "impracticability." We can only be thankful for small favors in the way of compliments, and Mr. Foster for the smaller of the two.

But Mr. Shearman asks, "Did Mr. Clarke get any farther or as far toward a solution of the problem?" Mr. Foster shows that I got as far as he did, and I contend that I got farther. I did certainly arrive at "a conclusion what was to be *done*." It was to leave the matter to respect for the rights of others, and a wise regard for self-interest. Does Mr. Shearman get any farther, or as far? No. He proposes half-a-dozen points of legislation, but not one of them touches the question at issue. His "idea in regard to legislation" has no bearing whatever on exclusive right to the occupancy of bee-territory. He would prohibit hives of bees being kept within 4 rods of a public highway without a close fence 8 feet high between the hives and the highway. All right, Mr. S., but what has that to do with what we are discussing? He would have a conspicuous placard warning people not to tie horses near hives of bees. All right again; but how does this bear on the territory question? He would protect owners of improved strains of bees, by excluding "native or grade bees,"—by the way, are not "grade bees" improved strains? but what has this to do with the main issue? These amendments are out of order. They are not relevant to the issue. I move the previous question.

Mr. S. does not see how any one can be legally prevented from keeping bees or anything else on his own premises, except on the grounds of being a nuisance or a hindrance to public improvement in some way. Nor do I. So the matter must be left to the moral checks for which I have contended, though as I have said, they are like the air-brakes on a railway train, which do not always hold, but, in the meantime, we have nothing better. If regard for the rights of others, and self-interest will not suffice to prevent over-stocking, there is no prevention for it.

I am of the opinion that Mr. L. C. Root's article on page 535 contains one of the solutions of the difficulty which will be adopted in the bee-keeping of the future. The ground he takes is what I have occupied ever since I began to write about bee-keeping. I have contended that apiculture, like dairying, is a legitimate part of farming; that every farm should have a few colonies of bees on it, and is not completely equipped without them. Bee-keeping specialists put all their eggs into a single basket. The past season has been a bad one for the eggs, and its relentless logic will convince many that they had better combine some other business with bee-keeping, so that when the honey crop fails, they may not be wholly "left." When bee-keeping is carried on conjointly with some other branch or branches of husbandry, there will be an end to over-stocking.

Guelph, Ont.

For the American Bee Journal.

Coral-Berry or Indian Currant, etc.

O. N. BALDWIN.

I send a sample of what we call wild rice. What its true name is we do not know, but submit the sample for information. The bees (Italians and hybrids) work on it constantly from early in May, when it first commences to bloom, till frost robs it of its blooms and foliage. It grows in great bunches 2 to 4 feet high, about fence-corners, or, in fact, wherever it gets root, and it is next to impossible to get rid of it when once it is well started.

This plant blooms every year, and has berries the shape of an inflated balloon, of a pale red color, and about the size of the slug in a No. 22 cartridge, with very few seeds nearly the shape but about one-fourth as large as a tomato-seed. The bloom is a pale blue, tinted with pink, and there are thousands of these on each plant. Black bees hardly, if ever, notice it, but bumble-bees, Italians and hybrids can be seen upon it from early dawn until late at night.

There is not enough of the plant here to tell to a certainty what the quality of the honey is, but from our closest observation we think that it will nearly, if not quite, equal white clover. The drouth or floods have no effect on it, and it will flourish wherever its roots catch; even in old, rotten logs, in dry, cemented cellar floors, etc.

THE SEASON OF 1887.

We have had a wonderfully bad season here; failure is stamped on everything in connection with bee-culture this year. I put 80 colonies in the cellar last fall, and took out 79 alive in the latter part of March; the one that perished was very strong, and not being allowed enough ventilation, their prespiration drowned them.

Last fall was also dry here, and my bees gathered only sufficient to carry them through to April. I had to feed them, which I did, using the formula, given in the BEE JOURNAL, by Mr. N. W. McLain. I was very successful with it, as the bees bred up more rapidly than I ever had them before, and when the first white clover bloom came, my bees were in an excellent condition.

There was a little flow of honey, and I ceased to feed, thinking, as in years past, that the harvest had opened; but the bees did not get honey enough to keep up the vast amount of brood being reared; so they commenced to dwindle down till there was scarcely a quart in each hive, on an average, and about 10 colonies actually starved to death! These were blacks! I saw that at this rate in a week or two more I would not have bees enough left "for seed," so I commenced to feed what was left. I gave them all they would use for four weeks, and now I have 55 colonies in good condition, with young, pure Italian queens of the best stock obtainable, having pinched the heads off of all old queens, and of those that did not come up to the standard.

For 15 months we have not had enough rain to wet the ground. In digging graves here to the depth of 5 feet, the earth was void of moisture, and would crumble up as dry as powder. We had a sprinkle last week about like a heavy dew, but by 10 o'clock the next day one could not have noticed that it had rained any at all.

We have had four or five such rains this season. The meadows are burnt up, stock is suffering for water, and the cisterns have nearly all been dry for a month. The prospect for fall bloom is very poor, and we will probably have to feed until next June, for rains now would hardly do us much good this fall.

The sweet clover seed that I sowed two years ago did not grow. I sowed about five acres, and I have seen but one plant from the whole of it. This one plant has been covered with bees for two months, and if it had all grown, my bees would have had fine pasturage.

Clarksville, Mo., Sept. 6, 1887.

[It is *Symphoricarpus vulgaris;* and its common name is coral-berry, or Indian currant. It is excellent for honey.—ED.]

For the American Bee Journal.

A Lesson from the Honey-Bees.

JOHN JAMIESON.

Little, busy, humming bees,
Nothing can me so well please,
As to watch your cunning ways,
On the bonnie, sunny days;

In and out, and out and in,
How I love your pleasant din,
Gathering honey from the flowers,
In the sun and shady bowers.

Flying far to get your load,
Never missing the right road;
Drop on the alighting-board—
In a trice the honey's stored.

Matters not how far you roam,
Seldom visit others' home.
Interesting little thing,
But for that mischievous sting,
Given, no doubt, for self-defense,
Should be used with common-sense.

No matter how good and kind,
Sting the same, remaining blind;
Sting their owner, or a king,
Just as soon's the meanest thing.

When a fellow comes to steal,
Then he might the venom feel;
Sometimes pleasant, sometimes cross,
Sometimes profit, sometimes loss.

For the winter they lay up,
Man steps in and takes his sup;
Sometimes takes it all. O, fie!
When Jack Frost comes, bees will die.

Let not the love of money
Prompt to steal all the honey.
In our moments of leisure,
Tending bees is a pleasure.
In handling, sometimes they sting—
"Keep cool," that success will bring.

Treat them kindly, work with care,
And you will the better fare.
New bee-veil, and gloves protect:
For such helps, we have respect.

After all, 'twill take some years,
To remove our stinging fears.
Lovely mother of the throng,
Cheering with her queenly song;

Never leaves her own dear home,
Having no desire to roam;
Only for the "wedding ring,"
And the early swarm in spring.

Learn a lesson from the bees,
And the flying moments seize;
Gathering in our winter stores,
Then care not how loud it roars;
And when this short life shall end,
Soar to meet our Heavenly Friend.

West Toledo, Ohio.

For the American Bee Journal.

The Production of Comb Honey.

G. M. DOOLITTLE.

In reading Mr. Theilmann's article on pages 552 and 553, I am led to think that my plan of working for comb honey is not understood by him, and perhaps not by hundreds of others.

Mr. T. says that Doolittle "practices side-storing," while the truth is that I never did such a thing, in the full sense of the word. Nine-tenths of all the honey I ever obtained was stored at the top of the brood-chamber, and the sides were only used for comb-building. Try to get around it as much as I may, the fact still remains, that bees will build comb much faster at the side of the brood than at the top; while the fact is equally prominent, as Mr. T. says, that bees prefer to store their honey at the top. Putting these two facts together, I was led, 14 years ago, to adopt top-storing in connection with side comb-building, or "side and top boxing combined," as I have termed it, the results of which I am not ashamed to lay beside any 14 years' record of any apiarist in the world.

Now how have I worked this plan? Although I have branched out in many directions (giving each in the BEE JOURNAL in years past) to see if I could not improve upon the honey yield, yet my method of working has generally been as follows:

As soon as the honey season opened, the packing was taken from the top of the hive, and about one-half of the top-room to the hive covered with separatored, single-tier, wide frames, the wide frames being filled, or partially so with sections full of comb left over from the previous season. As soon as the bees were well at work in them, they were spread apart and wide frames of sections containing starters of natural comb or comb foundation alternate between them, till the top of the hive was covered. In about a week more, or as soon as the bees begin to cap the first sections put on, the packing is taken from the sides of the hive, and wide frames of started sections placed on either side.

As soon as any honey of any account is ready to come off the top of the hive, these side sections are filled with comb containing a little honey; very little in the lower tier, but more in the upper ones. As I take off the finished sections at the top, the sections of combs are raised from the side to the top, where the bees soon fill them with honey, while they are building more comb at the sides in empty sections, or started sections, which are put in at the same time the others are raised to the top. In this way I keep on until the honey season draws toward a close.

At this time, when the wide frames of sections are raised to the top, the bees are shut from the sides so as to throw the whole force of bees and honey to the top. In this way I get most of the sections finished for market, having only enough unmarketable ones for the early start the next year.

By the above it will be seen that Mr. Thielmann's term, "side-storing," cannot be applied to my plan, and as far as pollen in honey in sections is concerned, I have had scarcely a dozen such sections in all of my experience as an apiarist.

That the above described plan requires rather more labor than some of the other plans, I am free to admit, but when it is considered that all sections are handled by the wide frame full, the labor is not so much greater than by some of the quicker plans, as a few would have us think. Then if we take into account that more honey can be secured by the above plan (which I firmly believe), than by any known plan, this labor problem has little to do with it, for the extra honey obtained pays for the extra labor.

One great reason why I object to nearly all of the case and non-separatored plans, is because we are obliged to put on just such an amount of surplus room, or none. This amount is generally *too* much on the first start, and tends to discourage the bees, rather than invite them into the sections. With the wide frame plan, as above, the amount of room can be guaged to the want of the bees every time, giving a range of from 5 to 65 pounds.

For the past two years I have been trying top-storing on the lateral plan, instead of by tiering up, and I must confess that so far I am very much pleased with it—so much so that I am thinking of giving up the side comb-building part entirely. The plan of working is to put on a small amount of room at first, the most of which is sections filled with comb. This with the contraction system gets the bees into the sections with the very first of the honey-flow, and entirely prevents the crowding of the queen with honey in the brood-chamber. As soon as the wide frames of sections first put on are partly full, place more at both sides of these, or enough room to last until the first are finished. When any are full, take out by the wide frame, and bring the partly filled ones to the centre, adding empty room at the sides of the partly-filled sections. In this way I have secured splendid results with as little labor as any of the known plans can boast of.

Borodino,⊙ N. Y.

British Bee Journal.

Foul Brood & Dead Brood—Difference.

S. SIMMINS.

Again and again this subject crops up, and one hears of whole districts plagued with the dreaded malady. Dreaded, I say, because it is now, and ever will be, a dark cloud hanging over our industry, when we consider what a number of bee-keepers there are who cannot, or do not care to take the trouble to put a stop to it.

Was not Mr. Cheshire's remedy to drive the scourge from all apiaries? and did we not hail his discoveries with rejoicing? Yet why is it so few have been able to cure by the phenol treatment, and others report that it is of no use? The present state of things shows that either the treatment is not carried out as Mr. Cheshire has advised, or else that he himself overlooked some factor which gave him an advantage; while his followers have been unable to grasp the entire subject in consequence of this one point not being brought before their notice. The fact is, my esteemed friend does appear to have overlooked a matter of the greatest importance which gave him a decided advantage over those who attempt to follow him.

It will be remembered that Mr. Cheshire had a very badly diseased colony provided for experiment, and it is in just such a state that many allow their colonies to get before they become aware of the trouble. But note this: there were very few bees and no queen. And what did Mr. Cheshire do? He gave them a young healthy queen and two frames of clean brood. Why, reader, here was health to start with, and then by feeding constantly with medicated syrup, the operator would have it all his own way.

The healthy bees would have little trouble in removing the disinfected foul brood, as I am aware from the fact that under certain conditions the original inhabitants will clear out the filth without it being disinfected. During my own experience some ten or twelve years since, I found that a populous colony would throw out every vestige of diseased brood, if the queen were removed. I have also found since, where any bees happened to be brought having the disease, that by removing the queen and inserting a queen-cell (from a clean colony) on the point of hatching, every particle of the putrid matter has been removed by the time the young queen was ready to breed; the disease again appearing, but with less virulence, until medicine was given.

It will be readily seen, therefore, that where a bad case will not give way all the time, the original queen is allowed to continue, a change to a young and vigorous mother will impart energy and determination to the workers, and then Mr. Cheshire's remedy will *never* fail.

Where the bees are so reduced as to be unfit for brood-rearing, of course they are not worth the addition of a new queen and more bees or brood, but should be immediately smothered, and the combs burned or reduced to wax. On the other hand, it will probably be found that when a colony is not very badly infected, the feeding of phenolated syrup, or its injection into the cells when the bees will not take it, will be found effectual without removing the queen. Another point which appears to have escaped notice is, that all sealed honey must be uncapped and likewise disinfected, or the disease is likely to reappear from time to time. Where there is much sealed honey, uncap a portion only at a time, and if possible do not contaminate the extractor.

What is done should be done thoroughly, and experiments left to be carried out by those who can afford the time, and have nothing to fear from risk of infection.

Mr. Ward, of Highgate, when visiting my apiary, stated that he failed to cure with phenol until the original queens were removed from his infected hives, and others from a clean colony inserted. Notwithstanding, therefore, that Mr. Cheshire considered it a great disadvantage to have received his diseased colony without a queen, it was the one thing that ensured success, in that he gave a healthy queen as well as clean brood.

It would appear, therefore, that when a queen is badly diseased, the phenol treatment does not renovate her impaired constitution. The workers probably are cured by taking the medicated food; but just here is the point: Does the queen, or does she not, receive the phenol in the food prepared for her by the workers? Perhaps Mr. Cheshire will pursue his investigations further, and benefit us all by giving some definite information upon this point.

That phenol is a cure for foul brood is certain; that it gives health to the workers appears equally true; and that in the future it will prove effectual in *every* case, I feel convinced, if the queen is superseded when the disease does not at first give way.

DEAD BROOD.

That foul brood is often confused with simple dead brood, I am well aware. The latter I have observed occasionally, and have never allowed it in any way to interfere with necessary manipulations, such as uniting, queen-rearing, etc., as I have no fear of communicating disease. At present I am unaware of any cause for this, unless it be weakness of the queen, as by inserting a fresh one, all is cleared out, while no more is found, and no medicine is necessary.

How to distinguish between the two: In some respects the two are similar, much of the larvæ turning rotten, and of a dark color, while the bees seem unable to remove such as is in that state, until the weak queen is taken away. Nevertheless, some of the matter being placed under the microscope, Mr. Cheshire was unable to find the slightest trace of disease.

But that every bee-keeper may decide for himself without the aid of a microscope, which is the genuine foul brood and which not, I will show how I have always been able to detect the difference. With simple dead brood, while some may appear like the foul disease, much of the older brood dries up to a white cinder, in many cases retaining its orginal form, which I have never found to occur when genuine foul brood is present. Chilled brood can be distinguished from the more serious malady in like manner.

Rottingdean, England.

For the American Bee Journal.

Making Honey-Vinegar.

W. G. FISH.

EDITOR BEE JOURNAL.—You would confer a favor on perhaps more than one if you would publish *all* the really practical articles and directions on making "honey-vinegar." Get them *all* in a condensed form in one issue.

Ithaca,♀ N. Y., Sept. 6. 1887.

[As requested, we have summarized the matter on making honey-vinegar and present it in a condensed form below.—ED.]

THE MUTH METHOD.

When making vinegar, one must know that water will turn into vinegar providing it contains the necessary quantity of sugar, and is exposed to fresh air and a warm temperature. The warmer the temperature and the better the circulation of air, the sooner vinegar forms. A barrel is laid down, and an inch hole is bored in the upper end of each head, near the upper stave. This admits of a good air-passage over the body of the honey-water. Tins with fine perforations nailed over these holes, with the rough side outward, exclude flies and skippers.

Take about one pound of honey to one gallon of water, thoroughly mixed up, and nail a perforated tin on the bung-hole. We take 35 to 40 pounds of honey for a barrel containing 40 to 45 gallons of water. The warmest place in the yard is the best place for the barrel. If the sun shines on the barrel all day, it requires from the beginning of April to the end of October to make vinegar satisfactory for all purposes. If not sour enough by fall, it will be all right by Christmas or spring, if placed in the cellar or a warm room.

THE BINGHAM METHOD.

To one gallon of the best vinegar, one pound of honey and one gallon of water is required. That is, 29 pounds of honey will make (water being added to it enough to fill a regular 32-gallon barrel) one barrel of the best vinegar. The vessels I use to make it in are common alcohol barrels, which I find at drug-stores. I saw out one of the barrel heads and paint the outside to prevent the iron hoops from being destroyed by the vinegar.

The barrels and vinegar are kept in my house-cellar, so covered with burlap as to keep the dust out and let the air in. One year converts this water and honey into the choicest vinegar.

Sweetened water from washing honey-cappings is the most common waste of the apiary, and to utilize it, is presumed to be the desirable matter in connection with honey-vinegar.

To know how sweet-water slowly sweetened and constantly fermenting should be, is one of the difficult features of converting the washings of cappings into vinegar. An instrument used by brewers, known as a Saccharometer, would, of course, show the amount of honey in the water, even if the taste did not fully determine the increasing sweet in the water as it was souring. I have made a cheap instrument to be used by those who wish to know how sweet water should be for vinegar, and may be relied upon as permanently accurate for such test.

BINGHAM'S VINEGAR-TEST.

Take of clean yellow beeswax, one-half ounce, and two ordinary shot, ⅛ inch in diameter. Warm the wax until it is soft, and put the two "shot" into the center of the piece of wax, as nearly as convenient. Make the wax into a ball like marble. Its upper surface will rise to the surface of the vinegar or water containing one pound of honey per gallon—just the amount needed for the best vinegar.

Vinegar made of honey may be evaporated, and the honey will candy in the residuum, and may be so reclaimed when honey is more prized than vinegar.

For the American Bee Journal.

Experience with Bees—Ancient Honey

JOHN JAMIESON.

My wife and I are both well advanced in years, and we thought a few colonies of bees would be pleasant and profitable employment; and would be a change from the routine of the farm.

> All that other folks can do,
> Why with patience may not you?
> Only keep this rule in view,
> Try, try again.

We are both Scotch, and have enough of "Wallace" and "Bruce" grit, not to cry over a sting. We get one now and then, but I suppose we will get used to it by degrees. My wife and son can handle the bees better than I. All the bees know about is, to gather, hide and eat honey. They cannot discriminate between friend and foe.

In the spring we got two good colonies. We had two first swarms in June, and two after-swarms in July. We put supers on the hives of the old colonies, and they have honey in both stories. We have no reason to complain considering the poor season. I think both the after-swarms already have more honey than they need for the winter. I have made a hive for observation, and if I can winter the bees, and I am spared to see another spring, I shall put my first swarm in it, and peep in now and then, and see them operating.

Honey is a nice thing to have. Keeping bees is one of the ways to get a share of the good things of this life. Samson, the strong man, partook of honey on his way to Timnath to see his girl. Was it not Providential? It was from a pretty rough hive, too, the carcass of a lion. That was honey in the comb!

That was not the age of extricators, exuders, extruders, emitters, evolvers, slingers, throwers, or even extractors. Samson and his father and mother used the oldest "extractor."

I agree with the editor in calling honey out of the comb, "honey" or extracted honey, and the other kind, "honey in the comb." Who does not know what extracted honey is? If all the lexicographers from Dr. Johnson till our own time, were assembled to-day, to decide the thing, I believe they would all say "extracted." It is from a Latin root, *trahe* and *ex*, which really means "drawn out of." What could be more emphatic? That is quite a digression from the use of honey.

Jacob sent a little honey with his sons to the governor of Egypt. It is mentioned among the merchandise of Tyre. John the Baptist used honey. Jesus and his disciples often used honey. In the "good old book" frequent mention is made of honey. Canaan was the land that flowed with milk and honey. In Palestine honey, no doubt, was an article of daily consumption. Honey is both nutritious and medicinal.

If all who spend their money for beer and other alcoholic drinks and tobacco, would eat honey, how much better off they would be. It would add to the national vigor both of body and mind. Alcoholic drinks and tobacco are positively injurious, whereas honey is a blessing.

Bee-hives are quite a lawn ornament. All my life I have loved bees, although I never had a good start till now. In Scotland, when I was a boy, I remember carrying bees out in the country many miles, on a wheel-barrow, to gather honey from the heather, a wild furz that grows in the moors in Scotland. That made the fall honey, just as the buckwheat does among us.

West Toledo, O.

For the American Bee Journal.

Twelve Proverbs for Bee-Keepers.

HENRY K. STALEY.

The following is an article taken from *Coleman's Rural World*, and as I have seen it published in but two papers, I think that the AMERICAN BEE JOURNAL should have it too; for its truth is self-evident truth, and it may in some degree help those who, uninitiated, intend to embark in bee-keeping. It is as follows:

PROVERBS PROVEN BY EXPERIENCE.

1. The ways of bee-keeping are not all ways of pleasantness, nor are all the paths thereof the paths of peace.

2. Man is to eat his bread in the sweat of his face, and there is no exception made in favor of the bee-keeper.

3. To work successfully a man must work wisely. To work wisely with bees, one must know their nature and habits; these can be learned only by careful study and observation.

4. We live in progressive times, and the true bee-keeper must be progressive.

5. In bee-keeping, as in other things, the diligent are crowned with success.

6. The obstacles in the way of successsful bee-culture are ignorance, carelessness, being too eager to increase the number of colonies, and cold winters.

7. A fair knowledge of bees, faithful attention to the apiary, and a thorough and timely preparation for the honey-flow, swarming and wintering, will make any man or woman a successful bee-keeper.

8. A tyrannical Pharaoh demanded of his workers the "full tale of bricks," but furnished them no straw. Do not demand of your little workers "the full tale" in pounds of honey, when there is none in the fields, or when you reside in a region poor in honey-yielding plants.

9. Carefully lay up your honey crop where thieves (especially robber bees) cannot break in and steal, and your empty combs where moth-worms will not destroy them.

10. Profitable bee-keeping greatly depends upon a gathering up of the fragments, that nothing be lost. Fragments of time can be used in caring

for bees; fragments of lumber in making hives and frames; fragments of combs for wax; and every drop of honey is useful; even though mixed with dirt, it can be fed to needy colonies.

11. Some bee-keepers seek their profits in rearing bees or queens to sell; but remember that the true aim of bee-keeping is to supply the market with delicious honey.

12. Live not for self. Make your knowledge profitable to others seeking to learn bee-keeping, that the coming generation of bee-keepers may excel the present, increasing in numbers and in knowledge, until every pound of honey secreted by the unnumbered flowers of our land is gathered.

In the first place, even those most ignorant anent the ways of bee-keeping, who intend to embark in that pursuit, will by a careful reading and digesting of the above truths, come to the conclusion that "all's not gold that glitters;" and that they cannot be carried through bee-keeping "on flowery beds of ease." That nice, lovely, mellifluent article, viz: anent the vending of honey at 50 cents per pound, would glitter like gold to one to whom ignorance of the apiary is bliss, and the consequence is, he starts in with conceit, money and experience in the following proportion: Conceit, O; money, 0; experience,o; and come out in the "little end of the horn" with—experience, O; conceit, 0; money, o.

Mr. Ralston, the author of these proverbs, says: "Nor are all the paths thereof the paths of peace;" especially I think so when one gets a *stinger* on his eye-lids, and have those sight-seeing orbs closed up; and then seek some sombre room—a soothing panacea for him—to hide the vista of his face from callers, and I cogitate that the novice, induced by flowery statements, would trow so too.

I wish that every person who starts in bee-keeping—especially those induced by mellifluous statements—would make a careful perusal of these twelve proverbs; and I am of the opinion, if they follow them out strictly, they would not become disgusted and fail; and albeit they do fail, not then to take out their spite on the innocent bee by concocting hideous lies anent sophisticated comb honey; nor execrate the honey-bee—that wonderful caterer of envied sweets, and also one of Nature's grandest pieces of mechanism, which by its work, purveys work for thousands of people.

Mr. Ralston has truly brought out that adage, viz: "The maximum of thought in the minimum of words," anent bee-keeping; that all beginners should try his proverbs, and that with a colony or so *ad libitum*, every day they have the chance.

As the whirlpool sucks down its prey insatiable, so do failures in bee-keeping suck down many of those palavered by sweetened and flavored statements about bees, such as—O, I need not reiterate.

Pleasant Ridge, ♀ O.

Exchange.

Wintering Bees in the Cellar.

EUGENE SECOR.

That protection of some sort is necessary, in our rigorous Northern climate, is admitted by most bee-keepers, not only on the ground of kindness to the creatures that God has given us dominion over, but also because it is economy to furnish it. Even if they would winter out-of-doors, and unprotected, the saving in honey consumed more than pays for the protection afforded, for the reason that a warm stable has advantages over the sunny side of a barb-wire fence, in wintering a cow.

I do not know how it may be further south, but for this latitude and longitude, I believe there is no place so safe and so cheap, in which to winter bees, as a good cellar. Some people have "gone wild" over chaff-hives, and packing on the summer stands, but I think the statistics of losses have been in favor of cellar-wintering. If they cannot be wintered successfully in a good cellar, the temperature of which never gets so low as to freeze potatoes (it ought to be 10° above that), I do not believe they can be carried safely through by any system of packing yet devised.

So far as my observation extends, when severe losses have occurred in cellar-wintering, they can be traced to two causes: first, putting them in too late in the season, when the hives were full of frost; or, second, allowing the temperature in the cellar to get too low.

A great many seem to think that because bees will sometimes live out-of-doors, in a temperature at times below zero, they can certainly stand it in a cellar considerably below freezing, without harm. While I may not be able to give a satisfactory reason why this is not so, facts are stubborn things,and it is useless to resist them, simply because they do not accord with our preconceived notions. Any one who has spent a winter at the sea-coast will admit that a humid atmosphere is much more penetrating than a dry one,and a good deal colder. I do not believe that a damp cellar is any disadvantage if warm enough (say 45°).

Out-of-doors, bees will endure very severe cold weather, if not of too long duration. If it would moderate enough for them to break the cluster and get to their stores, they might winter reasonably well without any protection (consuming more honey, of course), but in a climate where the mercury stands below zero for weeks at a time, they might starve with plenty of honey in the hive.

If the cellar is just as safe a place to winter bees as out-doors, packed in any way the bee-keeper chooses, it certainly has economy to recommend it. It is no small job to prepare, and no light expense to maintain, double-walled hives for out-door wintering.

In bee-keeping, as in any other business, the least money tied up in permanent fixtures, consistent with true economy, the better. The value of a colony of bees consists chiefly in the queen and her retinue of workers, and not in the costly hive they live in. If wintered in the cellar, no extra capital need be invested in double-walled chaff hives. The labor of putting them in in the fall, and taking them out in the spring, is so light and insignificant as to scarcely need mentioning. Two men can easily handle 50 colonies in two hours.

Another advantage in cellar-wintering, is, that every hive must be handled twice a year, and if light in weight, the manager will surely detect it without the trouble of putting it on the scales, and can supply the deficiency.

The above are some of the reasons why I believe in cellar-wintering.

It will pay to keep a thermometer hanging in the cellar, and not allow it to go below 35°. Keep the cellar perfectly dark, and perfectly quiet, except to look at them occasionally, if need be. Leave the entrances wide open, and occasionally clean out the dead bees. Destroy all mice, or they will destroy the colonies.

Forest City, ♂ Iowa.

For the American Bee Journal.

The Cause of "Bare-Headed" Brood.

H. E. HILL.

Mr. Erslev's article on page 569, contains some instructive points, but the "bare-headed" bees referred to by our friend "across the sea," is quite different from that of which I wrote. It is not uncommon to observe the effect of the moth-worm among the brood of black bees in America, either.

Their path may be easily traced running in a direct line with the rows of cells, diagonally across the comb, er, sometimes, branching off as gracefully as the leaves upon a frosted pane, according to their stage of development at the time of being attacked, some having never been sealed. Those further advanced have the cappings mutilated by the bees, so as to present a white appearance. The dark head of others may be faintly seen through the semi-transparent cocoon which has been gnawed nearly through; and occasionally one or two may be seen emerging from the cell, evidently sooner than was required by law (of nature).

These bleached, delicate baby bees crawl and drop about, often with a particle of web still adhering to the tip of the abdomen, showing that the posterior had been enveloped in the web of the moth at the septum of the comb, until they are carried out to die. These are, in reality, as much "bare-headed" bees as any, but on a much smaller scale, and of a decidedly different nature.

When one draws three or four combs from a hive and finds every cell open, exposing to view brood in all stages from the egg to bees emerging fully developed, and other colonies the same or in a similar condition, some having a part of two or three combs uncapped, containing brood in the last stage, others with but a small percentage of the advanced brood capped—noticing this in 20 out of 200 colonies for a whole season, as the bees emerge to see eggs placed in the cells hatch and mature, and the operation repeated over and over again, *which is the case*, he would at least be justifiable in saying that if the wax-moth is at all instrumental in producing this state of affairs, its dealings are *not* "direct."

With regret I confess my inability to give any explanation of the cause. I simply stated facts as they appeared to me. I have not even a theory to advance, though personally I am satisfied that it is a freak, rather than disease, which characterizes the progeny of certain queens.

Doubtless some of our veteran apiarists have had some experience with the phenomenon in question, and could, without difficulty, explain the cause, or at least favor the public with their views. I should like to hear from Mr. Osburn, of Cuba, on this subject; or from any one that has had any experience with "bare-headed" brood.

Titusville, Pa.

Read before the Florida Fruit Association.

Interesting Facts about Honey-Bees.

JAMES M. LISENBY.

The great secret of success in bee-keeping is simple and thorough management. This can only be accomplished by a complete understanding of the nature, habits, and requirements of the honey-bee, combined with labor, study, and experience in handling them, and a mechanical knowledge of the construction of hives that will give the greatest profit with the least outlay of money and labor.

Everything should be in order about the apiary. Let everything be perfectly clean about the hives, the grass and weeds cut from about the entrances, and, if in a locality where the ants bother, the hives should be placed upon a bench with supporting parts that have been tarred, over which the ants will not crawl. The bee-keeper should work with gentleness and care, avoiding jarring movements or anything that will agitate the bees. If the bee-keeper is timid or wishes to protect himself from being stung, he should wear a veil. Care should always be taken that each hive contains a queen. If any are found to be queenless, they should be supplied with brood from some strong colony, or doubled up with a weak colony.

The queen's office is to lay eggs; she is, properly speaking, the mother of the colony, and the only perfectly developed female in the hive. If there is plenty of cells for her use, she will deposit about 3,000 eggs per day, during the best breeding season. The native queen is much darker than the drones or workers, but the Italian queen is brighter than either.

The queen has shorter wings than either workers or drones, with a long, finely tapered abdomen. She has a sting, but will never use it only in combat with a rival queen. A queen can be reared from any egg that will produce a worker. The bees prepare for rearing a queen after the egg is laid, by cutting away the small cells around it and forming a large cell about the shape of a pea-nut about the egg. When a queen is lost, the bees will immediately form a number of these cells. When the first one hatches she will immediately destroy the others, unless prevented from doing so by the workers, in which case she will leave the hive with a portion of the bees, thereby causing them to swarm. This can be prevented by watching, and when the first queen is about to hatch, destroy the others. In about five days after the queen hatches she will leave the hive to meet the drone. This once accomplished suffices for life, and she returns to the hive never to leave it unless with a swarm. The length of a queen's life is from three to five years.

The drones are shorter and more bulky than queens; they are larger than the workers, and make a loud noise when flying; they have no sting, and are physically disqualified from performing any labor; they are reared about the commencement of the swarming season to the amount of a few hundred in each hive; their only duty is to impregnate the young queens, and as soon as the swarming season is over, they are destroyed by the workers. Where there is a large apiary there should only be a small portion of drone-comb left in each hive, and thereby prevent an over-production of drones.

The workers live from 30 to 120 days. Upon them devolves the duty of building combs, supplying the hive with provisions, and protecting the stores. The comb grows in rings on the abdomen of the workers. Each worker is an undeveloped female, and would have been a queen had the cell in which they were reared been large enough. The habits and instincts of the workers are too well known to be further discussed. From the time the egg is laid until the hatching of the bee is, for the worker, about 21 days; the drone, 24 days; and the queen, 16 days. In this climate they breed the entire year, but in colder countries but little brood is found in winter.

When the honey season sets in, you may naturally expect swarming to follow, and after the first swarm issues others should be prevented from issuing for the time being, by watching, and when the first queen-cell is about to hatch, destroy the others; otherwise they may swarm too much and become weak and, without great care, fall a prey to the moth. But the system of dividing colonies is considered better than natural swarming, for by this system the loss of bees by absconding is obviated. The best method of dividing is to take from one to three frames of brood from different hives, according to strength and liability to swarm, putting empty frames in their places in the old hives, then place the brood so taken in an empty hive, and, near the middle of a nice, warm day, remove some strong colony from its stand and place the new one where the old one stood, so as to catch what bees are in the fields on their return. They can now be left to rear a queen themselves, or be given a queen or queen-cell from a queen-rearing hive.

Gainesville, Fla.

For the American Bee Journal.

The Apiary Near a River.

MAHALA B. CHADDOCK.

I do not believe that it pays to keep bees in Central Illinois *unless* there is a river near the apiary. Mrs. L. Harrison is on the Illinois river; the Dadants on the Mississippi; I believe Dr. C. C. Miller is on a river, and Mrs. Axtell, of Roseville, is near a river. Speak out, everybody, and let us know.

I have seen letters in various bee-papers from a man named Graves, on Spoon river, that has lots of fall honey nearly every year, when I have none. I have never had but one good fall honey crop since I have kept bees. I do not live near any river. There is goldenrod and some other flowers along the creeks, but the bees never store any honey from them, for me. This fall there is a less amount than usual.

We had a rain (not a heavy one) about three weeks ago—the first that we have had to lay the dust since July 3. The wells are all nearly dry, but the pastures have grown green again. Smart-weed is in bloom, and the bees are working on it. But smart-weed does not amount to much in dry weather.

Vermont, Ills.

Pacific Rural Press.

Temper of Bees—Plea for Cyprians.

A. NORTON.

The temper of the various races of bees is, perhaps, the principal subject of inquiry by the masses concerning them. With many this makes little difference. In a large apiary run for extracted honey, such as we find in the southern counties of this State, the rapid handling that is generally necessary will render any bee vicious. Bee-keepers get used to it to such a degree that they are as much at home among irritable bees as among gentle ones.

Others, however, desire to find bees that will permit frequent examination without resenting it. Having but few colonies of bees, they can spare the time to handle slowly and gently, and to pet the insects without stint. Unless it be the Carniolans, which I have not seen, it is only a trite statement that Italians in their purity surpass all others for such persons. I have worked them repeatedly in a yard of ten or a dozen colonies, opening hives and handling all the combs without smoker or veil, and the bees have generally paid no more attention to me than would flies on a window. However, I must say that in such a yard I have had even hybrids so trained to slow handling that I could do likewise. Among the bees in a larger apiary I do not make it a point to venture without both a veil and a smoker.

I have for the past season been handling Cyprians, both pure and hybridized. Imbued as I had been with impressions of their irritability almost beyond the control of the operator, the season's experience has been a constant surprise. While having my smoker ever ready, I have seldom had occasion to use it. Even in taking off the cover from a hive, I seldom have to blow in any puffs of smoke to control them. In taking out combs I have found that the bees remain evenly spread upon them, and they fly but little. I have received but very few stings from Cyprians, except when I have accidentally pinched them.

The queens are easily found, although they are more nervous than Italian queens, as well as smaller, and inclined to be striped. While easily found, they seek the edges of the comb more noticeably than do the Italians.

The crosses between the Cyprians and the blacks are in no respect worse than the Italian hydrids. They vary much, however, in disposition. I find some colonies that I can handle easily, and others that I must subdue with smoke. While in ordinary handling many of these hybrids as well as pure-bloods will remain quietly on the combs, yet a sudden jar is sufficient to dislodge nearly all of them. In handling both pure-bloods and hybrids thus, I have noted that the bees thus thrown into the air immediately start for the entrance, instead of seeking the vulnerable parts of my person, as I expected.

I will say that I have not extracted this year, and this must have made some difference. I have one colony from a Syrian queen mated with a Cyprian drone. Her bees are light yellow, and bear handling much the same as pure Cyprians.

I have handled pure Holy Land bees a little, and their crosses with blacks much more, during former seasons in Mr. R. Wilkins' apiaries in Ventura county. There, in the height of the extracting season, they bore a good comparison with the Italian hybrid bees that were in the same circumstances.

Thus it will be seen that while some find the new races intractable, others find them easily managed. I only add my experience as one in a large column of figures, and I claim for it only its own influence on the general footing up. The Cyprians seem to be very active and excellent honey-gatherers I do not believe that they can be surpassed.

Gonzales, ♀ Calif.

Local Convention Directory.

1887. *Time and place of Meeting.*

Sept. 22.—Progressive, at Chester X Roads, O.
Miss Dema Bennett, Sec., Bedford, Ohio.

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Cheering Time in Bee-Culture.—W. A. Whitney, Iroquois, Ont., on Sept. 8, 1887, says:

While bee-keepers of the West seem to have had such a gloomy year in bee-culture, here in eastern Ontario we have had a cheering time. I began with 35 colonies, increased them to 71, and returned a great many second swarms. I have had about 1,200 pounds of honey, mostly clover.

Poorest Season in 10 Years.—Chas. Johnston, Sturgis, ♀ Mich., on Sept. 12, 1887, writes:

This has been the poorest season that I have experienced in my 10 years of bee-keeping. From 21 colonies, spring count, I have taken but 30 pounds of comb honey, and not that much extracted. The white clover was a failure, but the Alsike yield was very good for a few days. The bees swarmed, and began to work in the sections, but I had to take the sections off and give them empty combs. I use the Heddon improved-Langstroth hive, and his new hive, and practice the contraction method. I would not keep bees in any other hives. We have had about two weeks of good weather, and the bees have enough to winter on, from marsh flowers and buckwheat.

Poor Season in Massachusetts.—Wm. W. Cary, Coleraine, ⊶ Mass., on Sept. 12, 1887, writes:

I reached home last week from the West, and found my bees in nearly a starving condition. The forepart of the season was very good up to basswood bloom, which was not more than one-half of a crop. But I thought my bees had honey enough in the hives when I left home (July 27) to winter on, with what they would gather; but it has rained here nearly all the time for the past two months, and the bees have not been able to gather a particle of honey, and the result is I have to feed them all they will have to winter on. It is now cold, cloudy weather, and it rains about every other day, and no prospect of any goldenrod honey, as it will soon be gone. I had a fine visit in Chicago and Michigan, but I found very little honey anywhere; yet the bees which I saw in Michigan and New York State had a fair amount of honey in their hives for winter. It will cost about $200 to winter my bees, but I do not complain, but hope for a more even distribution of rain next year, and a good bee-season.

Make no Change.—S. J. Youngman, Cato, ⊙ Mich., on Sept. 4, 1887, writes:

Several times I have been on the point of expressing my views on the new name for extracted honey, and as the theme seems to be now about exhausted, and if not too late, I will state that I think that as far as Michigan is concerned, the present name is a better one than can be found; as I think that there are but few persons but what perfectly understand the word extracted. I have sold honey to a great many persons, and I have never seen but one person that thought that extracted honey meant an "extract of honey." I think that as apiarian literature increases, as it is fast doing, the people will all be better posted, and no one need think that extracted honey is anything else than pure honey. Let the term stand, by all means.

Bees in Observatory Hives.—A. C. Waldron, Buffalo, ⊙ Minn., says:

I want to make a hive for observation. Will bees work in the light, or must I cover the glass?

[They will work in the light, but prefer to work in the dark and unobserved.—Ed.]

Verbena.—H. T. Evans, Townshend, ⊸ Vt., on Aug. 20, 1887, asks:

Will you please give me the name of the plant that I send? Bees work on it well, and it keeps in bloom a long time.

[The plant is *Verbena hastata*, one of the vervains that have long been recognized as valuable for honey.—T. J. Burrill.]

The Drouth and Honey Crop.—R. M. Osborn, Kane, ⊶ Ills., on Sept. 10, 1887, writes:

I had 12 strong colonies of bees that wintered on the summer stands in splendid condition. There was plenty of bloom in the early part of the season, but there was but little nectar in it. We had no honey-dew. My bees are Syrio-Italians. The drouth commenced in June, and we in this neighborhood have had only about 2½ inches of rainfall since June 20. On Aug. 25 the thoroughwort commenced blooming, of which there is over 80 acres near my apiary. One of my colonies at this time became queenless, and as there were no drones since June, I united it with another colony. My bees have lost no time in gathering the sweet nectar and pollen from the bloom of the thoroughwort, which is now in full bloom. The brood-chambers are filled with capped honey in nearly all the 11 colonies, and some are now storing honey in the sections. I do not see anything else to gather honey from, as the pastures are all dried up, and stock is suffering for want of water and feed. The wheat and oats crop was excellent; the corn crop is very short. I have not heard of any surplus honey within a boundary of 5 miles around me, or within 100 miles. I hear that the general complaint is that bees are starving. One man near me had over 30 colonies in the spring, and he has now 3 colonies left. Everybody is discouraged, but I intend to "keep a stiff upper lip," and stand by my bees.

Bees Doing Poorly.—Wm. Anderson, Sherman,○+ Missouri, on Sept. 13, 1887, writes:

Bees are doing very poorly here. I never saw a year so hard on bees. They have not had enough honey to keep the amount of bees required to make a strong colony. During the summer months the weather was so hot and dry that everything was burned up, and there was nothing for the bees to gather. Half of the bees in this part of the country are dead now, and a hard winter yet in view. I will not get a pound of honey from 50 colonies, and will have to feed for winter. Those who have bees to sell next spring, will doubtless be able to get good prices for them.

Clipping Queens' Wings.—Mrs. Josiah Sanborn, Almont,○+ Michigan, writes:

I am a new hand at bee-keeping, and stop my bees when swarming, by ringing bells. Some say that is no use, that I ought to clip the queens' wings. Please tell me in the BEE JOURNAL how to do it.

[The day has passed away for beating pans and the like. You can capture swarms by a force-pump and water. Prof. Cook says:

To clip the queen's wing, take hold of her wings with the left thumb and index finger—never grasp her body, *especially her abdomen*, as this will be very apt to injure her; raise her off the comb, then turn from the bees, place her gently on a board or any convenient object—even the knee will do; she will thus stand on her feet, and not trouble by constantly passing her legs up by her wings, where they, too, would be in danger of being cut off. Now, take a small pair of scissors, and with the right hand open them, carefully pass one blade under one of the front wings, shut the blades, and all is over.

Dr. Miller cuts off both wings on the left side with a small pair of embroidery scissors. Great care should be taken not to cut off a leg also, and to cut off more of the lace than of the fleshy part.—ED.]

AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

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The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; If ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax :

CHICAGO.

HONEY.—We quote : White comb in 1-lb. sections, 18c. No call for dark comb. Offerings are small of all kinds.
BEESWAX,—23c. R. A. BURNETT.
Sept. 7. 181 South Water St.

DETROIT.

HONEY.—New comb is very scarce, and quoted at 17@18c. per lb.
BEESWAX.—23c.
Aug. 17. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.: 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.
BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c.
BEESWAX.—25 cts. per lb.
Sept. 16. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white liquid, 5½@5¾c.; amber colored and candied, 4¾@5¼c.—White to extra white comb, 12@15c.; amber, 8@11c. Receipts light and prices firm.
BEESWAX.—17@21c.
Sept. 9. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4½@5c.; amber and candied, 4¼@4⅝c. Receipts light; poor crop.
BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-lbs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 16@18c.; the same in 2-lbs., 13@14c.; fair to good 1-lbs., 13@15c., and 2-lbs., 10@12c. Extracted white clover, in kegs and barrels, 7@8c.
BEESWAX.—21@22c.
McCAUL & HILDRETH BROS.,
Aug. 24. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16c.; dark 2-lbs., 14c. choice white 1-lbs., 18@20c.; dark 1-lbs., 15c. California white, 16c.; dark, 14c. Extracted, white, 8@9c.; dark, 5@7c. Market firm ; receipts of 1-lb. comb honey light.
BEESWAX.—20 to 22c.
Sep. 14. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c., 2-lbs., 15@16c.; dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.
BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 5½ to 6c.—Market very firm at above prices.
BEESWAX.—21c. for prime.
Aug. 2. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote for extracted, 3@7c. per lb. Comb honey has been sold out perhaps better than ever before at this time, only remnants of dark honey being left. Choice white would readily bring 15c. in a jobbing way.
BEESWAX.—Fair demand,—20@22c. per lb. for good to choice yellow.
Aug. 19. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.: 2-lbs. glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@8c. Demand large.
Aug. 30. F. G. STROHMEYER & CO., 122 Water St.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this : Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discussion—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

◆

Will you Exhibit at the Fair? If so, we will supply you all the copies of the BEE JOURNAL that you may desire to distribute to the bee-keepers you may meet there. We also have colored posters to put up over exhibits of honey, wax, supplies, etc. Send for them early, so as to be sure to have them on hand in time. They will cost you nothing, but we should like to have you get up a club for the BEE JOURNAL, if you can possibly do so.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

We are sometimes asked who our authorized agents are. Every subscriber is such an agent ; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Mr. J. E. Pond's address will be in the future, North Attleboro, Bristol Co., Mass.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We Supply Chapman Honey-Plant seed at the following prices : One-half ounce, 50 cents ; 1 ounce, $1 ; 2 ounces, $1.50 ; 4 ounces, $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Advertisements.

FOR SALE in CALIFORNIA.

ON account of the death of the proprietor, Mr. J. D. Enas, a RANCH of 240 Acres, partly Fruit—80 Colonies of Bees, Steam Machinery for the manufacture of Supplies for bee-keepers (a well-established business). The Land will be sold in 40 or 80 acre tracts. Also, Stock, the Farming Implements, and a large stock of Apiarian Supplies. For particulars, address

MRS. J. D. ENAS, (P. O. Box 306),
38A6t NAPA CITY, CALIFORNIA.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at best market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

$200 CASH

WILL buy a Complete Apiary consisting of 18 Colonies of Bees in Root chaff-hives, 16 in Root ½-story Simplicity hives ; 24 Comb-Honey Crates to go in Simplicity hives ; 1,500 1-lb. Sections ; 150 extra combs in wired frames, several extra hives, 1 Novice Honey-Extractor, and everything to make an Apiary complete. All hives nearly new and well painted (white). This is a bargain.

Address, T. BOOS, Kinmundy, Ills.

HOW TO WINTER BEES,

ELEVEN Essays by eleven prominent bee-keepers, sent by mail for 10 cents.
Address, HENRY ALLEY,
11Atf Wenham, Mass.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

BY RETURN MAIL!

SIX Warranted Italian Queens	$5 00
Fourteen Warranted Italian Queens	10 00

☞ Safe arrival guaranteed.
26Atf H. ALLEY, Wenham, Mass.

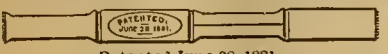
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.



Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

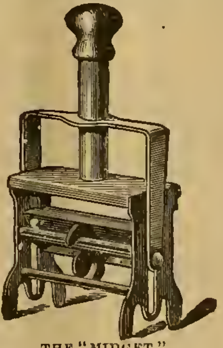
F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

SELF-INKING RUBBER-STAMP.

2,000

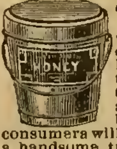


THE "MIDGET."

Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted Send for Catalogue and terms. Address,

GEO. T. HAMMOND,
BROCKPORT, Monroe Co., N. Y. 28Etf

NEW ONE-POUND HONEY PAIL.

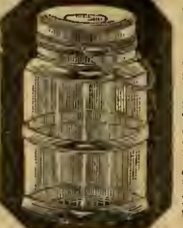


THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen	**$1.60**
" 2 pounds " " "	**2.00**
" 3 " " " "	**2.50**

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

ONE bright Tested Italian Queen, with 3 frames Bees and brood, $3.00. Tested Queen, $1.25.
5Aly O. N. BALDWIN, Clarksville, Mo.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practica information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S. etc., and published by John Huckle, King's Langley, Herts, England.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℘ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Sept. 28, 1887. No. 39.

While it has seemed impossible to have our European visitors so time their travels as to be here at the time of the Convention in the United States, we are pleased to learn that our Canadian friends have improved the opportunity presented at the Toronto Exhibition, to show their appreciation and good will. Bee-keepers of the United States only lack the opportunity to do the same.

◆

A Larger Crop of Apples, it is said, will be grown if a colony of bees is placed in the orchard. The pollen is rubbed from their bodies against the pistils of thousands of flowers, which thus become fertilized. Many of the strange freaks of hybridizing varieties, are due to the agency of bees.

◆

To Make Labels Adhere to Tin, an exchange says: "Take of flour 6 ounces, of molasses ½ a pint, and of water 1½ pints, and boil as usual for flour paste. Or, dissolve 2 ounces of resin in 1 pint of alcohol. After the tin has been coated with the solution, allow nearly all the alcohol to evaporate before applying the label."

◆

What a Woman can Do!—The following is from the Nebraska *State Journal*, concerning the display of honey, etc., in the Horticultural Hall at the State Fair:

> This exhibit by Mrs. J. N. Heater, of Columbus, Nebr., consists of comb and extracted honey, wax, and apiarian supplies. It is tastefully arranged, striking in appearance, and is admitted by all judges to be the best exhibit ever made in the State. Various articles of the display were awarded first premium, and the general verdict of all is that as a bee-keeper Mrs. Heater has no equal in Nebraska. She has studied the science for years, and has embarked in the enterprise in a purely business manner. Such an exhibit as this is the best means of getting before the people the fact that for bee-keeping the natural resources of Nebraska are among the foremost States of the Union. This fact has been recognized, but nevertheless there is a wide field for labor in this direction, and the sooner it is utilized the better.

Nebraska is an excellent honey-producing State, and we are pleased to note the above item, but do not insert it to disparage any other apiarist of that enterprising State. Still it shows what a woman can do.]

Our European Visitors.—During the Exhibition at Toronto, Ont., we are pleased to note that the Toronto Bee-Keepers' Association held a special meeting on Sept. 15, 1887, to welcome Mr. T. W. Cowan, chairman of the British Bee-Keepers' Association, and Mr. Ivar S. Young, editor of the Norwegian bee-periodical. Our readers are well aware that these gentlemen are on a tour of inspection among the bee-keepers of America.

Among those present were, Rev. W. F. Clarke, R. McKnight, D. A. Jones, A. Pringle, S. Corneil, R. F. Holtermann, M. Emigh, and Vice-President J. B. Hall. The latter called the meeting to order, and requested Mr. R. McKnight to read the following address:

> *To Thomas William Cowan, Esq.:*
>
> DEAR SIR.—On behalf of the bee-keepers of Ontario we bid you and Mrs. Cowan welcome to Canada. As chairman of the British Bee-Keepers' Association, we recognize in you the representative of a body of philanthropic gentlemen who devote much of their time to the promotion of apicultural knowledge among the artisan and laboring classes of your own country.
>
> We are not ignorant of the good work you have accomplished. We know you have been instrumental in inducing thousands of your countrymen to embark in the fascinating work of bee-keeping, and thus spend their leisure hours in healthful, profitable employment. The fact that the Association of which you are the chairman (with its affiliated branches) numbers some ten thousand members, attests the success of your labors. We sincerely hope that you and your associates may be long spared to prosecute the good work so well organized, and so skillfully conducted.
>
> As proprietor and editor-in-chief of the *British Bee Journal* you are better known to the apicultural world than most of your countrymen. Your published works on scientific and practical bee keeping have won for you a name and a fame far beyond your own sea girt home. We rejoice in the opportunity this visit affords us of making a closer and more personal acquaintance with you.
>
> We indulge the hope that your present visit to the United States and Canada, and your personal intercourse with the leading bee keepers of both countries, will increase your zeal in the good work of teaching men the means and methods whereby the earth may be made to yield its increase of delicious and healthful nectar, which abounds in the flora in the fields, and in the forests of most countries. The extent to which the honey industry may be developed is as yet but little understood, and he who labors to make it better known is certainly doing as much for mankind as he who makes two blades of grass grow where but one flourished before.
>
> We are especially pleased that you so timed your visit to Toronto as to be able to witness the display of Canada's industrial products now on exhibition here. A careful examination of these will help you to form a just estimate of what the people of this young country have accomplished within the present generation, and give you an idea of the resources of the Dominion. It will serve to prove to you that Canadians are not drones in this hive of British colonists, and mayhap inspire you with the common faith of our countrymen that,
>
> "If our past has records few
>   In battle song or glory,
> Our future rises fair to view,
>   Gleaming with morning's youthful dew,
> And bright with coming glory."
>
> Accept this trifle as a slight but tangible expression of respect and esteem for you, as a man and a brother bee keeper. We wish you and Mrs. Cowan a pleasant time while you remain on this side of the Atlantic, and a safe return to your home and family beyond the seas.

Mr. McKnight also made an address of welcome to Mr. Young, and expressed the pleasure of the Association upon having two such distinguished visitors. Then Mr. Cowan was presented with a handsome gold headed walking stick, and Mr. Young with a beautiful meerschaum pipe and case.

Mr. Cowan replied at length, detailing the work of the British Bee Keepers' Association, and paying a compliment to the delegates who were present at the Colonial Exhibition in charge of the Ontario honey exhibit.

Mr. Young also expressed his thanks for the hearty reception he had received from the bee keepers in Canada.

As Mr. Cowan had his large microscope with him, those present were afforded the pleasure of examining through it many things of interest to them. A very pleasant evening was spent, and one that will be long remembered by those who were present.

◆

Honey Sugar.—In a German periodical named the *Hannoverishes Magazin*, it is stated the Jews in Moldavia have a method of making honey into a hard white sugar, which is employed by the distillers of Dantzic to make their liquors. The process consists in exposing the honey to the frost during three weeks, sheltered from the sun and the snow, in a vase of some material, which is a bad conductor of heat. The honey does not freeze, but becomes hard as sugar, transparent and white.

We have a small can of sugar made from honey, in our Museum. It was placed there some ten years ago by Mr. T. S. Bull, who made it. It is good brown sugar, but its cost is too much to be profitable.

◆

Fall Flowers will help to fill up the hives with honey for winter stores. Mrs. L. Harrison, in the *Prairie Farmer*, remarks as follows about it:

> There is plenty of time yet for bees to lay up stores for winter. During the summer of 1885 there was but little honey after the middle of June, and I thought I would have to feed many colonies, and prepared to do it. Grasshoppers were responsible in a great measure for the loss of the crop that season, as bees are very sensitive to smell, and would not work on flowers where the hoppers had been. When I went to feed the first colony, the hive did not stand to suit me, and I took hold of it to lift it, when I found it was too much for my strength. On investigating, I found every hive full of rich, thick golden honey, which had been gathered, as it were, during the last days of grace just before frost. It was all gathered during a week or ten days.

◆

A Chapter from our pamphlet, "Honey as Food and Medicine," may be found in the "Bee-Keepers' Magazine" for September (page 275), credited to the "Farmer and Dairyman," and signed "Thomas Brasel, Portland, March, 1887." There are twenty places in the United States called Portland, but the State is omitted, of course, to cover up the theft. We have seen it in the "Bee-Keepers' Advance" and other papers. We have no objection to such being copied, but we do not like to see it credited erroneously.

◆

The October Number of *Frank Leslie's Sunday Magazine* offers much to the reader, and of so varied a character that every class is sure to be pleased. Serial and short stories, poems, essays, art and science make up a very attractive table of contents.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Removing Pollen from Combs.

Query 474.—How can I remove old pollen from brood-combs?—G. T.

Melt the combs.—DADANT & SON.

Soak the combs in water until the pollen can be thrown out in the extractor.—G. L. TINKER.

Give it to the bees in the spring. We never have too much pollen.—A. J. COOK.

Put in the hive in early spring, and unless spoiled, the bees will use up the pollen, converting it into brood. —G. M. DOOLITTLE.

You cannot do it, but you can let the bees do it if you will insert the combs in the hive in the spring.—J. P. H. BROWN.

Practically this is impossible. The only way is to give them to the bees in the spring, when they will take care of the bee-bread.—W. Z. HUTCHINSON.

Put them in the brood-nest in the spring of the year; that is, exchange them for combs in the brood-nest that have no pollen in them.—G. W. DEMAREE.

I do not know the best way for *you* to remove the pollen or bee-bread. I believe it best to let the bees do it, which I always do.—JAMES HEDDON.

If you have more than the bees can use to advantage, melt them up. You can dip it in water, and the pollen will ferment and loosen in the cells, when you can jar a large part of the pollen out.—H. D. CUTTING.

If not spoiled, let the bees use it. If spoiled, it can be soaked up thoroughly and thrown out with the extractor. If there is only a little of it, the bees will clean it up.—C. C. MILLER.

Keep it until spring, and then allow the bees to use it in rearing brood. I do not think it can be profitably removed in any other way. Soaking it out with warm water has been advised but I have never found it to work satisfactorily.—J. E. POND.

Exchange them for combs in the brood-nest having no pollen in the spring. Such brood-combs of pollen will be very acceptable to the bees then, and *they* will take care of them much more easily than you can, and without expense or labor on your part.—THE EDITOR.

Number of Brood-Combs for Winter.

Query 475.—In order to winter bees safely, how many combs are necessary?—Ont.

From 3 to 8, according to the size of the colony.—G. M. DOOLITTLE.

Just what they can cover, provided they contain the requisite amount of stores.—J. P. H. BROWN.

Only enough to hold the bees and abundant stores. I consider unoccupied combs in the winter a damage. —C. C. MILLER.

As many as are necessary to give 25 pounds of honey to the bees, and room for the cluster.—DADANT & SON.

I have wintered a colony well on the summer stand on two Langstroth frames. I prefer from four to six Langstroth frames well covered with bees at the commencement of cold weather.—J. E. POND.

Perhaps not any are absolutely "necessary." I consider from 5 to 8 of ordinary size the best number.—JAMES HEDDON.

This depends upon the size of the colony. I have repeatedly wintered nuclei on 3 Gallup frames.—A. J. COOK.

It will depend upon the size of the colony; from 2 to 10 frames. A small colony will winter on three combs in good condition, if well taken care of. —H. D. CUTTING.

That depends upon the size of the colony. I winter all good colonies on a full set of combs. I am not an advocate of "crowding bees" in their winter quarters.—G. W. DEMAREE.

I prefer 5, and not more than 6 Langstroth frames, or an equivalent space. But in a very large, well-packed chaff-hive, bees will winter very well on full sets of combs, if the stores are not too much scattered through the combs.—G. L. TINKER.

It depends upon the size of the colony, and where the bees are wintered. Out-of-doors I would not try to winter a colony upon less than 5 combs; in a warm cellar as small a number as 2 or 3 may be used, if the colony is proportionally small.—W. Z. HUTCHINSON.

Even nuclei can be wintered in a good cellar; but out-of-doors, the colony should have sufficient winter stores, and from 5 to 8 frames.—THE EDITOR.

Is Phenol Injurious to Bees?

Query 476.—Is phenol injurious to bees when used in moderate quantities?—New York.

I have had no experience with it.—G. M. DOOLITTLE.

I do not know.—W. Z. HUTCHINSON.

I do not think it is, but I have had no experience in its use for bees.—G. L. TINKER.

Mr. Thos. W. Cowan, in his *Bee-Keepers' Guide*, gives the following safe recipe, as indicated by Mr. Cheshire: 1. Pure phenol in crystal, 12 ounces; water, 3 ounces. Shake until dissolved. 2. Solution No. 1, one ounce; water, 1 pint. 3. Solution No. 2, one ounce; sugar syrup, 1 pint.—DADANT & SON.

From what I have read of its use on bees, I think it is safe if used in moderate quantities.—H. D. CUTTING.

From what I have read, I should judge not, but I have never tried it.—C. C. MILLER.

I do not think so. If it were I think we should have learned the fact from those who have used it.—A. J. COOK.

I have had no experience with phenol, and have but little faith in its usefulness in the apiary.—G. W. DEMAREE.

If used to eradicate disease it is not injurious; but if applied to bees in a normal condition, I should say it was. —J. P. H. BROWN.

I have never used it, but I do not see why it should be more injurious than smoke. Unless used in quantity sufficient to kill at once, I cannot think that any harm will follow from its use.—J. E. POND.

I do not know. I have never used any, never had any occasion for its use, and hope I never will have. I think there is no necessity for this spreading of foul brood, which is now so rife in our country.—JAS. HEDDON.

No. Mr. Cheshire, who had to destroy many colonies of bees in experimenting "in order to find the curative dose," says: "The vapor of phenol (the phenol being poured on blotting paper), on two occasions, killed all the brood." He then adds: "I found that 1-200 (that is one part of pure phenol to 200 parts of syrup) was refused by the bees altogether; that 1-400 might be given constantly to a sound colony without appearing to limit the queen in breeding, *or touch her health*; that 1-500 dispatched foul brood quickly, even while honey was coming in; and that 1-750 appeared enough when it was not. I have established these quantities as the correct ones." Moderate quantities are, therefore, not injurious.—THE EDITOR.

Convention Notices.

☞ The Eastern Indiana Bee-Keepers' Association will meet at Richmond, Ind., on Oct. 5, 1887.
M. G. REYNOLDS, *Sec.*

☞ The Pan-Handle Bee-Keepers' Association will hold its next meeting in the K. of P. Hall, No. 1138 Main St., Wheeling, W. Va., on Oct. 26 and 27, 1887. All bee-keepers are cordially invited.
W. L. KINSEY, *Sec.*

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.
J. T. CONNLEY, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.
W. Z. HUTCHINSON, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal

Causes of Drouth—Plausible, if correct.

W. J. CULLINAN.

On page 582, Mr. J. M. Hambaugh undertakes to give the causes of drouth and methods of securing rainfall. Now, while I do not pretend to be meteorologist enough to fully explain the causes of the present severe drouth which has prevailed almost all over the whole country, I will give my views, like Mr. H., for what they are worth.

He says he believes "that when we remove the natural cause of rainfall by drainage and tileage, we may reasonably expect a reverse of the natural laws in the shape of drouths." This, while it may seem plausible to some, is to me very imcomplete; for had we to depend upon local evaporation from the very small portion of land drained by tile (which will probably not average one acre in one hundred), drouths would indeed be frequent. When we take into consideration the fact that three-fourths of the earth's surface is covered with water, while the remaining one-fourth is largely intersected by rivers, creeks and branches, and thickly dotted throughout its length and breadth with lakes and ponds, both natural and artificial, and containing millions of acres of *un*drained land, "drainage and tileage" as a cause of drouth falls into such utter insignificance as to be hardly perceptible.

And further, if local evaporation were sufficient to produce rain, one would think that Mr. Hambaugh, whose farm lies adjacent to the Illinois river, that has rolled by it for ages, and never yet showed the bottom of its channel to the sun, and in the midst of thousands of acres of *un*drained and *un*tiled swamp lands, would have been blessed with sufficient rainfall to answer all ordinary purposes. But, alas! it was as dry on Mr. H's farm as it was on farms twenty miles distant from any river, lake or pond (if such a farm can be found); thus showing conclusively that local evaporation has very little to do with it.

I do not know what may have been the peculiar position of the planets which are said to affect the weather, but I firmly believe that the absence of high winds, and almost entire immunity from storms of various kinds has been chief among the causes of the present generally severe and protracted drouth.

Again, Mr. H. says that "by a plentiful rainfall we may avert, to some extent, the ravages of the cyclone." Perhaps the atmosphere never was freer from moisture than it was the past summer, yet how many cyclones did we have? How does the cyclone record compare with three years ago when we had a plentiful rainfall? This is ample proof that dryness of the atmosphere is not conducive to cyclones as much as dampness, if affected by either.

The drouth—here, at least—has not been nearly so disastrous as Mr. H would make it appear, where he says that had we gotton rain, "in the place of barren or burnt up fields, we would have them heavily laden with the products of the soil. In the place of empty hives, we would have them filled with honey, etc." "Instead of barren and burnt up fields" we have had this year, without any exception, the largest wheat and oat crop that was ever known in this section of the country; and I see the same recorded for Missouri and other States. We had a fair crop of hay, and will have more corn than we had last year. We have also double the yield of clover seed that ever was known before. It is true the honey crop has been a partial failure.

In places, I admit, the drouth has been disastrous, but this seems to be nature's method of resting the Earth, and allowing her to recruit her waning powers. There are men who would "ride a free horse to death," and there are also those who would tax the face of Mother Earth until they had wrested the last atom of fertility from her bosom, if nature did not come to the rescue, and by withholding the necessary rain, give her the rest she so much needs. True it is, that "The ways of the Lord are past finding out;" and just as true is the fact that what we consider disastrous to our interests is often a blessing in disguise. Such I consider the failure of the honey crop to bee-men-proper, weeding out, as it will, many of the side-issue individuals, cleansing the world's markets of surplus honey, creating a better demand, and giving better prices another year.

Here I rest, and leave this matter of rainfall and the causes of drouth to wiser heads and abler hands to fathom if they can, and give us the correct solution.

Mt. Sterling,←○ Ills.

Indiana Farmer.

The Drouth, Shade for Hives, etc.

G. W. DEMAREE.

I keep an apiary of from 50 to 120 colonies of bees, and am deeply interested in the new and thriving industry of honey producing. Bee-culture is affected by drouth perhaps more than any other rural pursuit. The drouth has been more general the present season than in any season since the decade of drouth-years set in, and there is a wider-spread complaint of short honey-yield than at any time heretofore. How long this state of things will last is a discouraging problem. For one I do not partake of the dark forbodings of a majority of writers on this subject. I have lived long enough to know that there have been decades of dry years, and decades of seasonable years heretofore, and I believe that we may reasonably expect the same state of things in the future.

Although the honey-yield in this part of Kentucky was lighter than at any time heretofore, our bees are in better condition now than they were last season at this time. Notwithstanding the drouth, my bees have gathered a little nectar in the mornings, and the queens have continued to keep the hives well stocked with brood. It has been a rare case in the past to see so much brood at the first of September as is to be seen in my hives now. I may have to feed some for winter stores, but my bees will go into winter quarters well stocked with vigorous young bees.

It has been frequently asked if it will do to locate an apiary where there are no shade-trees to shade the hives in the heat of the day. My experience the past heated spell has satisfied me on this subject. There are no trees near enough by to cast a shade over any of my hives. My hives are about 4 inches from the ground, on a smooth blue-grass plat of ground which is protected by a plank and wire fence. The grass is kept closely mowed so as not to interfere with the flight of the loaded bees. Each hive has a shade-board over the hive-cover. This is all the shade the hives had during the late heated term, and not a single comb in my large apiary melted down. The "shade-board" over the cover of the hives, so as to have an air-space between the cover of the hive and the shade-board, is ample protection to my hives, and gives me a clean, smooth apiary yard, free from trees or other obstructions to operate in.

Christiansburg,♁ Ky.

For the American Bee Journal.

Large Honey-Yield from Basswood.

M. A. GILL.

The season in southwestern Wisconsin has been a very peculiar one. Bees came out of the cellar in good condition; the season opened unusually favorable, and all went well until clover bloomed, when the relentless drouth kept us from getting any honey from that source. I did not even see one cell full of clover honey.

Raspberry and sumac were equal to the demand for brood-rearing, so that by the middle of June the bees were booming with everything but honey. When basswood bloomed (two weeks earlier than is usual) I think that two persons with a good appetite and a few warm biscuits could have eaten all the surplus honey from 88 colonies.

When basswood first bloomed the bees were too young to be ready for it. I doubled my colonies down to 80, and took the queens away. They had been previously equalized until they all came up to the swarming point at once. They were in two yards, 46 and 34 colonies respectively; 33 of the 34 would have had sealed cells within 36 hours from the time the first cell was sealed.

I divided them long enough before basswood so they would have no brood to feed, and so the young queens would commence laying before the close of the yield. Of course the *modus operadi* is patent to every one, so I will only give the result: Basswood lasted 22 days. The colony on scales stored 218 pounds; one other colony got 74 pounds in three days, and the 80 colonies got 10,000 pounds, an average of 125 pounds.

Bees in this locality got from nothing to 70 pounds per colony. One peculiarity this season, the older the bloom got the better it yielded. The atmosphere reached that peculiar electric condition just at the last. Since basswood bloom the bees have just made a living, but are getting a little surplus to-day from asters.

Star, ? Wis., Sept. 14, 1887.

New England Farmer.

A New Economy—Bee-Keeping.

W. S. BLAISDELL.

Not a few of the appliances which abound in modern times are those which are designed to save the wastes. To-day we cannot afford to lose. In the times of our fathers, such was the prolific condition of a virgin soil, that they thought but little of taxing it to the remotest without any adequate return of manures as an exchange for the yearly products. Barns were built with scarcely a thought of what might be saved. No regard was had for the compost heap. It was not dreamed of even, or if mentioned at all, it was only to stir ridicule for notions of fancy farming—the kind done with "gloves and patent leathers," the very extreme of rustic sarcasm. But this is all changed. A man now gets rich by saving what the fathers let run to waste.

The barns are built for saving, and the older ones are being remodeled for the same purpose. The compost heaps are places of peculiar interest. They are the mint which turns the ore of everything apparently worthless into the gold of profitable fertilizers. The fields are being redeemed. The farms are growing in productiveness, which is better than to grow in size. And all but the New England pastures—for we must make an exception here, and we do it too as a witness to an improvidence yet to be rectified—are beginning to blossom as the rose. New England has had to mix brains with her farming work; and it must be admitted that brains are beginning to win.

There is, however, another step above this, and it may be there are many of them; but one is prominent, so much so that it is attracting some attention and a little discussion. During the blossoming season of the year, there is a large excess of sweetness deposited within the calyx of the flower, more than what the ripening of the germ requires. It is left to the rains to be dissolved and carried away. Millions of pounds of the choicest nectar that nature affords are wholly lost, and there is nothing returned as an excuse for the waste. With any adequate means for saving and preservation, there is enough of this necessary element of human subsistence washed down the stems and and stalks of our flowering plants, to furnish this great need in the provisioning of man.

But man on his part, as if unwilling, to appropriate in this particular at least, what has been provided freely in nature, has been most indefatigable in seeking his supplies by the most difficult and costly methods. He has tapped the maple, but the tree gives up its life reluctantly and makes him pay for the deed. He has planted in his best soil the sorghum and the sugar canes, but what with the labor of cultivation, the exhaustion of his lands, and an expensive apparatus, the moral of his methods is taught in the smallness of his profits. The result has been, and still is, that the prices of sugars have always ruled high, and must be so as long as man forces himself away from a natural product. He can have his notions even when they are wrong, and he can blindly follow them; but then—he must pay the price.

It is fairly probable that we should not know of this vast waste, with all our research, with all our science, had it not been revealed to man through the instinct of an insect. The honey-bee has literally "made known what has been hid from the foundation of the world." There seems to be a very intimate relation between this insect and the human race, so much so, that if we will accept it, there appears therein a manifest design. The bee is not independent of man, while in some respects it rises far out of the possibilities of his reach or thought. It has no reason, not a glimmer of it. Myriads of them will slaughter themselves trying to follow a ray of light through glass, while they cannot find the way out of an enclosure, if it be in the rear and darkened. They do, however, put the skill and cunning of man to shame in a thousand ways. They are the most docile, unwearied, uncomplaining, and successful servants that man can have.

The colony is a model of a workshop. Two men working together, even if they be brothers, have more friction than 50,000 bees, all desperate workers for the common weal as they are, and silent sufferers as well. With man, temperament goes a good ways. When he is peaceable, people look the third time to see if he is not lazy; and where he is quarrelsome, they throw the cloak of charity over the fault in the apologetic remark that he is *smart*. The honey-bee is both peaceable and smart. The temper of the bee, the power to force its sting, is only its defensive armor. Its attack is a sacrifice of self for the protection of the colony—what some of us may do, so very reluctantly, for *our* country in her hour of peril.

The honey-bee then, and the secretions of the flowers which can be gathered by the bee, are very substantial gifts, providing for man, as is possible, about one-third of his subsistence. By no means has it yet been done, and herein may be perceived the vast waste of these years. It is urged very decidedly to any advocacy of the bee-keeping interests, that there are many who have tried it with but indifferent success or a total loss. That it is not so in all cases is proved by the great successes which have been achieved.

But why is it so even in an exceptional case? A very little observation enables one to see the reason. All the care goes to the cows, the hogs, and the geese, and there is no time left to be devoted to an insect whose delicate organization requires a hundred fold more skill from the man than what the coarser fibred animal does. The honey-bee responds quickly to a little skillful care. It needs only little, but that little both as to time and amount is vital to its prosperity, if not to its very life.

The condition of all success is the mixing of brains with one's work, and this is what the bee-keeper must emphatically observe. He must study the nature of the bee and its needs, so as to understand them. It cannot be wholly learned from books; careful, continued and discriminating observation is the only reliable means. And until the man can neglect everything else, if that be required, and attend to this bees, he will never do well in this choice line of production.

The honored Langstroth mixed a little brains with his work, and he did it at that juncture of time and development of this industry, that he was led to construct the movable-comb hive. This event marked a great advance in the art, and has made an illimitable industry possible. In doing this he did a deal of thinking for the farmer, clergyman as he was, and down to the latest time he has made us all the better off. But though more than a quarter of a century has gone, his genius is scarcely yet appreciated, nor has his invention wholly succeeded in driving out the old-formed hive, in using which our fathers were excusable, for they knew no better, but its continued use is a sarcasm on us.

It is not a question of entering into an experiment where new industries are to be tested. The matter is wholly a saving of wastes from an industry tested and proved, but whose wonderful possibilities are only now beginning to be appreciated. From this one source alone, careful judges have estimated that from $100 to $200 yearly can be added to the net profits of every farm in New England. We do not think the estimate high. There are some localities where the abounding raspberry, the white clover and the basswood are so plentiful that larger estimates would not be exaggerations. The forests, now only profitable to the woodman and lumberman, would give up a large yield of nectar. The back places and corners, inaccessible to cultivation, but where the raspberry clings, may be the most productive plots. The hedges and stony places where only the goldenrod can thrive and bloom, may be fruitful of golden gains. The white clover fields and the buckwheat may be useful for other purposes than what the scythe and sickle contemplate.

Nor should we fail to notice the fact that all this is absolute saving. There is no pay-back to any phase of the industry. In producing honey, you do it to the prejudice of nothing. The lands are not the worse off for the profitable yield. You do not, in a cargo of it, ship also the heart of the hills and the valleys. That remains with us, and is growing larger the while. The soil is kept at home. The pastures—the poor, denuded pastures—come to be fruitful again, for the full hand gives back a moiety of the gains to enrich the desolate places. The bees fertilize the flowers and make all things more productive. Everything indeed smiles the more joyfully because of their coming and their going, and truly, it must be said of them, as one writer has felicitously bestowed the telling epithet, that they are the *blessed bees.*

Randolph,○+ Vt.

For the American Bee Journal.

An Inexpensive Bee-Feeder.

E. S. EDEN.

As this is the month for feeding bees, I will give a description of my feeder, and plan of placing it on the hive. I make it as follows:

Take a strip of tin 4 inches wide and 12 to 16 inches long, according to the desired size of the feeder; make a rim by fastening the ends together with a lap joint. Then take another piece of tin 3½ inches wide, and a little shorter than the other, make another rim, and place a piece of cotton over this last or smaller rim; then shove it down into the larger one, and the feeder is finished.

In shoving the smaller rim with the cotton over the end into the larger one, the cotton is drawn very tight, like a drumhead, and it just goes down to within ½-inch of the lower edge of the larger rim, allowing sufficient bee-space between the cotton bottom of the feeder and the frames when it is placed on the hive.

In placing it on the hive, I turn back the quilt the width of the feeder, then cut a hole in a piece of paper a little smaller than the feeder; place this paper on the exposed frames, put the feeder over the hole in the paper, fill it with feed, put the cap on the hive, and the job is finished.

You will observe that the bees will enter the feeder through the hole in the paper, and suck the food down through the cotton bottom. It is not necessary to use heavy cotton, as it will not leak the food through it unless it is very thin. The object of the paper being placed on the frames, is to keep in the heat and save cutting a hole through the quilt. This feeder works grandly. It cannot daub the bees; can be cleaned very easily by replacing the cotton; and, above all, it is cheap and easily made, costing only 5 cents.

Eastwood, Ont.

Western Stock Journal.

A Plea for Extracted Honey.

REV. O. CLUTE.

The honey extractor is simply a can containing a revolving frame. Into this revolving frame the frames of honey are placed and rapidly revolved, or whirled around, by turning a crank. The centrifugal force throws the honey from the cells without breaking or in any way injuring the combs. The combs can then be returned to the hive to be again filled with honey.

In producing and using extracted honey, there are several important advantages, viz:

1. A large yield of honey. It is estimated by the most competent bee-keepers that it takes from 15 to 25 pounds of honey to make one pound of wax. When comb honey is produced this comb is used only once—it is sold with the honey and consumed. But in producing extracted honey, the comb is not consumed. The same comb may be filled and extracted several times in the course of a season, and then stored away for use another season. Thus the honey and time that would be used by the bees in comb-making can be devoted to gathering honey. With good management at least twice as much extracted honey as comb honey can be produced.

2. The good quality of the honey. Pure honey, as stored by bees, is one of the most beautiful and delicious articles of diet. Beeswax, or comb, is indigestible, and of no value as an article of food. Extracted honey is entirely free from wax or comb. But when comb honey is used, the indigestible comb must either be swallowed or removed from the mouth after swallowing the honey.

3. It is more easily handled. Comb honey is very easily injured. A slight bruise will set the honey to running, and soon the combs are damaged, and the sticky honey is leaking over everything. A very large part of the comb honey reaches market in an unsightly condition. But extracted honey is thrown from the combs, drawn from the extractor into kegs or barrels, and then taken to market in tin pails holding from one to ten pounds. The pails make neat, serviceable packages, that do not leak, are handled with care, and, when the honey is used, are valuable for use in the household. Extracted honey can be taken in barrels and kegs to any part of the world, and is becoming an important article of export.

4. It is more convenient to use. Honey is largely eaten with hot-cakes and hot biscuits. For these, extracted honey is just the thing. The crystal syrup-cup is full of the beautiful, clear, amber honey. It can be poured upon the buttered cakes until they swim in luscious sweetness. It can be poured into the pure, white china sauce-plates to be put with a teaspoon on the biscuits. Then if farmers, and everybody, would produce honey in abundance, it could be used for cakes, puddings, jellies, preserves, and temperance drinks, and for all these purposes the extracted honey is superior to any other.

5. Extracted honey is not *strained* honey. This distinction must be carefully made. Strained honey is often a very inferior article. Old black combs, filled with rank bee-bread, or with the larvæ of young bees, is broken up, and the honey, mixed with the juice of young bees and with bee-bread, is strained out. It is not wonderful that it is dark and muddy in color, and rank in flavor. But "extracted honey" is the pure article, thrown from the combs by centrifugal force, without admixture of young bees or bee-bread. It is honey in its purest and most serviceable shape.

6. It is cheaper than comb honey. As the bee-keeper can produce more extracted honey than he can of comb honey, with the same amount of bees and labor, he can afford to sell it for less. Hence it can be used by many who could not afford to buy comb honey. There is no doubt that comb honey has intrinsic excellences, which will always command for it a good market. But it is equally certain that extracted honey has merits which will rapidly bring it forward. We hope the day is not far distant when every family in the country and in the villages will keep bees to supply the family table with this delicious and healthful sweet.

Iowa City,○+ Iowa.

For the American Bee Journal.

The Causes of Drouth Unknown.

EUGENE SECOR.

I wish to express my approval of the article on page 553, by J. C. Armstrong, on tile-draining as relates to drouth. It is the best that I have seen on the subject.

Only a day or two ago I was talking with a man who came to Iowa in 1854. He said they experienced a drouth about that time of such severity that in going by wagon from Muscatine to Fort Dodge—*in April*—there was not moisture enough to wet the wagon tires except when they forded rivers. Of course there was not a mile of railroad, nor a rod of tiling in Iowa. Immediately following this period was a wet one, when steamers ran on many of our inland rivers. And on page 563, we are informed that England is at present suffering from drouth, nearly as great as our own.

All this goes to prove that drouths and floods always have existed, and, I believe, always will; that they are independent of local bodies of water;

that tile-draining has nothing to do with it.

I have many times this summer talked with a certain theorist on this subject, who believed that tile-draining is a cause of drouth. I said to him, "Your argument must be based upon the theory that local rainfall depends upon local evaporation." "Yes." "Then will you please, at your leisure, tell me how many gallons of water it will require to cover Iowa one inch deep? And since we get an average rainfall of about 35 inches annually, where does the water come from, as there is not water enough in all our rivers, lakes, creeks and sloughs to cover the State *one* inch deep?" He has not yet answered that question. If that theory were correct, then Minnesota with her thousands of lakes, the British Isles surrounded by water, and various other localities that might be named, ought never to want for rain.

Another peculiar feature of this dry summer has been the precipitation of moisture west of what is considered the rain-belt. Parts of Dakota that usually get a much less rainfall than Iowa, have this year been blessed with enough for crops—and that, too, where the country is so dry as never to need draining.

So I infer that the great "cycle of the years" will again swing round, and we shall again have all the rain we need—if not more—notwithstanding the fact that a few farmers are trying to drain the malaria-breeding districts in which they are compelled to live. Let us possess our souls in patience. Drain your farms if they are wet in ordinary years. We shall again have the "early and latter" rains. Indeed, while I am writing, the "windows of heaven" are open, and we shall have several inches of rainfall at this one down-pour.

Forest City, ♁ Iowa.

Farmers' Advocate.

Honey—Marketing and Winter Care.

A. B. STINGER.

The same general rules which guide us in marketing extracted honey are applicable in the case of comb honey. It should be made attractive to the eye, and satisfying to the taste; and should bear the name of the producer upon each package of this kind, however small.

The greatest care should be taken to prevent the surface of the comb being soiled or broken. If so disfigured it should not be put upon the market unless it can be sold without the producer's name. The sections themselves should be scraped and sandpapered till they shine, and the crates should be either white and clean, or nicely stained or painted. Each package should "set off" its contents.

Honey should not be sent to market in the half stories or cases of the hives, but in nice white crates made for the purpose, with glass at one side, at least. There is a great deal in a show of honey, and so the more of these crates piled up in a window the better, because the honey is made more attractive, and also more conspicuous.

The winter care of honey is important. Extracted honey, if not kept in a constantly warm place, will granulate, that is, will become hard and white, and appear much like lard. Many people think this change in honey a sure sign of adulteration, and begin to talk of sugar. (Such poor creatures do really deserve our pity; but we must overcome a just contempt on our part before we can bestow such a sympathy.) The granulation of honey is the best test of its purity; if adulterated with glucose, honey will not become solid; or if with granulated sugar, it will become caky, and have crystals through it, and likely a hard crust on top.

To re-liquify honey, it is only necessary to warm it slowly and thoroughly. Proceed as follows:

Take a tin or iron vessel of sufficient size and place inside of it a wooden block or light iron-grating of some kind about half an inch high, and large enough to support the vessel containing the honey. Place this latter vessel upon its support, and fill the outer one with lukewarm water as high as possible without covering the honey. Remove the lid from the honey and place the whole affair over a slow fire; keep the water just under the boiling-point till the honey is all melted. Seal it up again while warm.

Honey (in the comb) should be kept where it is dark, dry and warm. The light will spoil the color of the capping; dampness will burst the cells and sour the honey; and cold will granulate it.

For the American Bee Journal.

The Season—An Old-Fogy Bee-Keeper.

E. W. WALES.

I began the season of 1887 with 27 colonies of bees in an average condition, and obtained 175 pounds of comb honey, and 75 pounds of extracted, in all 250 pounds. I increased my apiary to 58 colonies. The combs of one colony melted down in August, and one was robbed, leaving me 56 colonies for winter. Taking the season through, I must say that it is the poorest I have known in the 15 years of my bee-keeping.

I had a conversation with Mr. R. O. Lintz, of this place, who is a very intelligent and successful bee-keeper. He said that the present season was the poorest he has ever known, and if the outlook for next season was not good, for good prices for honey, he would feel almost discouraged. His advice is to stick to it, hoping that we may blessed in the future. Like mine, his crop was not one-fourth of what it ought to be. We have had an almost unparalleled drouth.

I recently talked with an old-fogy bee-keeper living several miles from me. The first question he asked me was, "Have you any bees on hand?" I informed him that I had 56 colonies. I then asked him the same question, and his answer was "No."

Seven years ago last January I visited his apiary; it consisted of 44 colonies of bees. There the hives stood, some looking like the famous "leaning towers," and others nearly perpendicular; but all were the picture of squalid poverty and woe. The sun had just arisen, and was casting its light over the snow-manteled hills and valleys. I took a survey of the surroundings, and it was easy to see the key to the position. The hills and cliffs were covered with basswood (linden trees), while willow and soft maple were everywhere to be seen. The fields furnished white clover, and the river bottoms gave a perpetual bloom. All this was what supported these bees, in spite of utter dilapidation.

While I stood there, my friend noticed that I was interested in an old, old sycamore-log "gum" about 3 feet high, which was split open on both sides, from top to bottom, and bound together with an old rusty chain. Coming to where I was, he said: "That 'gum' of bees is 30 years old." I attempted to explain by saying, "You mean that you have had bees in that log for that length of time." He replied, "I say that them bees are 30 years old." I gave it up; he ought to know.

Some of his "gums" had glass through which you could see the bees at work. While others had great, clumsy drawers, holding from 4 to 6 quarts. He said that there was a good "king" in that gum, for he had always worked well for him. Just think of a "king honey-bee" reigning 30 years over subjects 30 years old, all the while in that old split log!

I made a bargain with him for 6 season; I to furnish the hives, and he to hive the first 6 swarms that issued the following summer. As the time nearly arrived, according to agreement, I appeared with the hives (the Simplicity pattern), and it was laughable to see him examine them—some of the frames were filled with foundation, while others had merely starters. He asked questions by the hour, and declared that the bees would eat out and drag from the hive such stuff as that foundation was!

Now as to the results: He had only one swarm issue, which he put into one of my hives. The rest of his bees laid out for weeks at a time, and there were no more swarms that season, and only 150 pounds of honey from 44 colonies. He said that the bees would die in such a "Yankee trap of a concern" as the Simplicity hive was.

I left my swarm with him, as the weather was extremely hot, and in due time put on 40 one-pound sections. In the fall I went after it. I took the sections off, all nicely filled with basswood honey. I explained to him what he might have done with his bees in proper hives; at which he called me a "yearling," and looked upon me with pity and commiseration. He said that I was going contrary to "natur," and had turned

"Young America." The hard winter of 1883-84 killed all of his bees, and he informed me that he should not commence again, as the Yankees were making comb honey by machinery, and a bee had no chance! As in days of old, such is the ignorance of a certain portion of mankind.

Disco,○ Mich., Sept. 20, 1887.

Prairie Farmer.

Provide Pasturage for the Bees.

MRS. L. HARRISON.

No farmer or stock-raiser would think of keeping sheep, cattle, or horses without a pasture or range for stock; if some apology for a farmer should try to do so, he would be accounted a fool, or a trifling, shiftless fellow. It is equally unwise to build up a large apiary without providing pasture or forage for bees. It is true that if your neighbor has good pasture for them, your winged stock can enjoy it without being impounded, nor will you run the risk of being sued for trespass; but if there is no good bee-pasture within a reasonable distance of your apiary (1½ or 2 miles) you must provide the same, if you hope to ever receive any shekels from the production of honey; and this is the way to provide it:

If you have land, plant of raspberries from ⅛ to ½ of an acre. There are many good varieties, perhaps none better than the "Queen of the Market." The fruit for family use will pay you for the trouble, and the honey that your bees will gather will repay you. Sow upon any good, dry pasture land, white or Dutch clover with blue grass or red top; this makes a quality of feed relished by stock, and of unsurpassed excellence, and your bees will gather from the clover blossoms a nectar "fit for the gods."

If you have any broken or detached pieces of ground, separated by creeks or ravines from the main body of your land, plant upon the same a grove of basswood or American linden (*Tilia Americana*). The tree grows to a large size, and the blossoms yield, in many seasons, profusely of honey. As an ornamental shade tree, it is surpassed by few.

Sow of buckwheat (the silver skin variety) the last of May any pieces or corners of ground you may have to the extent of one acre; it will keep down the weeds, the straw is a valuable fertilizer for the ground, and the bloom will be in its prime for bees during the last of July, when there is ordinarily a scarcity of bee-forage. Sow again the first of July of buckwheat for a grain crop.

Sweet clover (*Melilotus alba*) is one of our very best honey-plants; coming into bloom in July, it continues to blossom until frost, and yields very largely of honey of the very best quality. It is a biennial, does not bloom the first year, and at the close of the second year dies, root and branch. Bee-keepers can put rough, broken ground to no better use than to sow it to sweet clover.

There has been a diversity of opinion as to whether bees gather honey from corn, or pollen only. For many years we have annually had a piece of sugar-corn in our garden, and from personal observation are satisfied that when the weather and electric conditions are right, bees gather considerable honey from it. The sweet, rich, succulent roasting-ears are a luxury; and any one who has fed the stalks to horses or cattle, and seen the gusto with which they devour them, and noticed their beneficial effects, will certify to the great value of sweet-corn fodder. Therefore, plant an acre or more of sweet corn (better more than less).

Goldenrod, if not present in your locality, may be introduced, and encouraged to grow along the roadsides, and the careful apiarist, who thus assists the busy little workers, may rest assured that he will be amply rewarded, by abundant stores of nature's own confection.

Peoria,⊙ Ills.

For the American Bee Journal.

Do Bees Puncture Grapes ?

MAHALA B. CHADDOCK.

I have heard more complaints this year than ever before, about bees eating grapes. It has been so dry that the bees have had nothing to gather since the fourth crop of white clover, until the grapes began to ripen. I have stood by the bees as well as I know how, fighting their battles for them over and over again.

The other day a woman that was picking grapes here, said: "Why, see here, Mahala, here the bees are eating your own grapes. You believe it now, don't you?" and I went over the same old arguments to her. I know that not one person in a hundred believes what I say, but I go on saying it to all and sundry, just the same.

Vermont,⊶ Ills.

[The weather, drouth, birds and wasps, etc., are always the cause of the grape-skins being opened—then the bees will make short work of sucking up the juice. We will here quote a few authorities to prove our assertion. Dr. S. S. Rathvon, the learned editor of the *Lancaster Farmer*, a paper of excellent scope and character, and devoted to the highest interests of agriculture and horticulture, remarks as follows:

I have grown grapes (Isabellas, Clintons, Concords, Hartford Prolifics, Marthas, Delawares) upon my premises for thirty years, and yet I have never observed a bee cutting or tearing open any of them...........

I have not conversed with a single person who says he ever saw a bee in the act of cutting open grapes. But the grapes are found ruptured, and the bees at work upon them, and that seems to be the bulk of the testimony.

Mr. Charles R. Muth, Secretary of the Cincinnati Entomological Society, has made observations and experiments, and his testimony is very weighty. He says:

If you lay a ripe bunch of grapes with sound berries in front of the hive, with the entrance thereto contracted to ½ or to ¼ of an inch, so that every bee going out or coming home will have to run over or around the bunch, you will notice that they try their very best to attack the grapes, while yet every berry remains intact.

He found the same to be true of a sound, ripe Bartlett pear. After he had satisfied himself of the inability of bees to penetrate the skin of the grape, he then punctured each berry with a pin, and in an hour or two nothing remained but the skins and the stem.

Some persons aver that the bees sting the grapes, and thus puncture the skins, thereby destroying the fruit; but the following from a lecture delivered by Prof. F. W. Tustin, before the Lewisburg, (Pa.) Scientific Society, will set the matter to rest. He says:

The sting of the bee is an organ in its structure, and in its use, quite different from the mandibles. It is situated in the posterior part of the body, and is a finely pointed instrument with an open tube extending along its entire length. At the root of the sting is a little sac in which is contained the poisonous fluid, which the bee injects through this tube into the wound which it may have made. The object here is to provide the insect with the necessary means of *self-defense* when it is exasperated or attacked, and so far as is known, it is only under these circumstances that the sting is used. *It is strictly an organ of defense, and in no way used as a means to assist in the gathering of the food.* When the sting is used, it simply punctures the surface to which it is applied, unless that surface should be powerful enough to resist the fine point of the sting. So that with reference to the question before us, the opinion is generally held, that in their ravages upon grapes, if bees ever do tear open the skin, they certainly do not and cannot do this with their sting, this organ having no power to tear or cut open, but *only to penetrate or puncture easily yielding substances.*

I have never seen the bee in the act of tearing open the skin of a sound grape, although I have seen repeated instances, of one and indeed several bees together luxuriating upon the sweet juices of a Delaware or a Concord.

And so far as I have been able to correspond with them, I find that the authorities upon this subject quite unanimously agree, that there is no evidence against the bee, that it tears open the grape, although this assiduous little honey-worker is ready to appropriate the sweet substance of the grape, the peach and kindred fruits, when once the skin has been broken from any cause, whether on account of a defect in the growth of the fruit, or through disease, or by reason of an excess of juices in the fruit whereby the skin not being able to yield sufficiently must burst, or through the sting of a wasp or of other insect.

Prof. A. J. Cook, of the Michigan Agricultural College, of whom we are proud to say that he is one of the most conscientious and thoroughly-critical observers, makes these unqualified assertions:

> I have lived for some years in the midst of vineyards, and where bees were very numerous, but I never saw bees tear open a sound grape. If bird or wasp or disease break the grapes, and the bees find no other stores, they will lap up the oozing juice. At such times I have broken grapes, and when they were being supped by bees, I would remove them and place sound grapes in their stead, when the bees would at once stop work.

Mr. N. W. McLain, in his official "Report to the United States Entomologist upon the observations and experiments in the practical work at the Apicultural Station in Illinois," remarks as follows concerning his experiments for testing the capacity of bees to injure fruit. He says:

> The house used last season, 10 feet by 16 feet in size, having sides partly covered with wire cloth, and large screen doors in each end, was used again this year. Two colonies of Italian bees, two of hybrids, one of Caucasians, and two of Syrians were confined in this house.
>
> These colonies were without food in their hives, and at intervals of three or four days were fed a little syrup for the purpose of keeping up their vigor, and to prevent dying from starvation. A wood-stove was placed in the house, and a high temperature was maintained for a number of hours each day.
>
> The conditions incident to an unusually severe and protracted drouth were present within and without. The bees were repeatedly brought to the stages of hunger, thirst, and starvation, the test continuing for 40 days.
>
> Through the favor of Mr. T. T. Lyon, President of the Michigan State Horticultural Society, I obtained 13 varieties of choice grapes from A. G. Gulley, of South Haven. Every inducement and opportunity was afforded the bees to appease their hunger and thirst by attacking the fruit which was placed before them. Some of the bunches of grapes were dipped in syrup and hung in the hives between the combs, some placed before the hives on plates, and grapes were suspended in clusters from the posts and rafters. The bees lapped and sucked all the syrup from the skins, leaving the berries smooth.
>
> They daily visited the grapes in great numbers, and took advantage of every crack in the epidermis or opening at the stem, appropriating to their use every drop of juice exuding therefrom, but *they made no attempt to grasp the cuticle with their mandibles or claws*. I removed the epidermis carefully from dozens of grapes of various kinds, and placed them on plates before the hives. The bees lapped up all the juice on the outside of the film surrounding the segments of the grape, leaving this delicate film dry and shining, but through and beyond this film they were not able to penetrate.
>
> I punctured the skins of grapes of all kinds by passing needles of various sizes through the grape, and placed these before the bees. The needles used were in size from a fine cambric needle to a packing needle. The amount of juice appropriated was in proportion to the size of the opening in the skins, and the number of segments of the grape broken.
>
> The same was true where grapes burst from over-ripeness. Bees are not only *unable to penetrate the epidermis of the grape*, but they also appear to be unable, even when impelled by the *direst necessity*, to penetrate the *film surrounding the berry*, even after the epidermis is removed. Grapes so prepared, without exception laid before the hives until dried up. If but one segment of a grape be broken by violence or by over-ripeness, the bees are unable to reach the juice beyond the film separating the broken from the unbroken segments until further violence or decay permits an entrance for the tongue.
>
> Clusters of sound grapes which I hung between the comb frames in the hives occupied by strong colonies, were unbroken and sound after fifteen days' exposure in the hives. The skins were polished smooth, but none were broken. I also stopped up the entrance to several hives—containing good-sized colonies—in the apiary and in the wire-covered house, by pushing sound grapes into the opening, so close together that the bees could not pass through. By this means the bees were confined to the hives for days in succession, not being able to break down and remove the grapes, and although the skins of the grapes next the inside of the hive were polished smooth, none were broken or injured.
>
> The past season furnished an excellent opportunity to observe the capacity of bees, under so exceptional circumstances, to injure fruit, for the drouth was very exceptional both in duration and severity, and I was called to several places by fruit-growers to witness the proof that bees were "tearing open the skins of the grapes," and otherwise behaving in a manner altogether unworthy of any insect enjoying a wide reputation for virtue and orderly living.
>
> In each instance I succeeded in convincing the fruit-grower that the bees were simply performing the office of gleaners; that violence from other sources, or over-ripeness or decay had preceded the bees, and that he would be acting the part of wisdom in following the example of the bees in gathering the grapes before further violence, or the action of the elements rendered them worthless.
>
> After grapes have been subjected to such violence, or have so far burst open and decayed as to make it possible for bees to injure them, and the circumstances are so exceptional as to lead the bees to seek such food, unless they are speedily gathered they would soon become worthless if unmolested.
>
> During the past season I made many visits to vineyards—one located near the apiary I visited every day, and my observations and experience with bees in confinement, and those having free access to the vineyards furnishes abundant proof to convince me that *bees do not and cannot under any circumstances injure sound fruit*. If from any cause the pulp is exposed, such as the attack of birds or wasps—the most common source of injury—or from the ovipositing of insects, or bursting of the berry from over-ripeness, and if no other resources are available, the bees appropriate and carry away the juice, and the extent of the injury depends upon the degree to which the pulp is exposed, the sweetness of the juice, and the number and necessities of the bees.

In the face of this very positive testimony not only from entomologists and scientists, but also a grape-grower of 30 years' experience (Dr. Rathvon), is it possible any longer to entertain a doubt on the subject? The bees are innocent, and before the bar of public opinion are exonerated of the charges so persistently made against them.

They fructify the flowers, and thereby increase the fruit, but they do no damage to the horticulturist nor to the fruit-growers!—Ed.]

For the American Bee Journal.

Census Statistics—Hive-Covers.

D. F. PARK.

I notice on page 581 the editor's comments on the worthlessness of the United States census statistics, and I would mention that the enumerator of this district refused to take my honey report, saying that his instructions were not to take any report of farm products unless produced on three acres of land. This decision shut out about 300 colonies in this village alone, and if so construed everywhere, it would make a great difference in the grand total. Would it not be well to have some proper ruling before taking the next census?

Now as we are preparing our bees for winter, allow me to suggest my cover: Make a box the size of the hive, and 5 inches high; lay on it a piece of the matting that comes on tea-chests, then nail on strips of wood all around it one inch wide and ⅜-

inch thick. Nail two strips across, and you have a cover that costs almost nothing, and will last for years, as the bees do not cut the matting as they do burlap. The strips raise it above the frames, and does away with Hill's and all other devices. In winter fill it with chaff or planer shavings. If you wish to feed in the spring, remove the chaff and cut a hole, put in all the feed you please, and there will be no danger from robber bees. My losses in wintering do not exceed one per cent, while last winter 75 colonies came through without loss, on the summer stands.

Athens,♂ Pa., Sept. 15, 1887.

Local Convention Directory.

1887. *Time and place of Meeting.*

Oct. 5.—Eastern Indiana, at Richmond, Ind.
M. G. Reynolds, Sec., Williamsburg, Ind.

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Oct. 26, 27.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Pleasing Results.—John McKeon, Dryden,⊙ N. Y., on Sept. 14, 1887, writes:

We (Mrs. M. and I) commenced the season with 41 colonies, increased them to 61 by natural swarming, and have taken 2,400 pounds of comb honey in one-pound sections, about 100 pounds more in unfinished sections, and 20 gallons of white extracted or amber color. We have 10 supers full of buckwheat honey to extract, and therefore we are well pleased with the result. We have taken the advice of Mr. Hutchinson, and "carry a stiff upper lip."

Better than the Average Yield.—W. D. Markham, Hart,⊶ Mich., on Sept. 17, 1887, writes:

I commenced the season on May 1 with 80 colonies, and had 60 first swarms, but only increased my apiary to 108 colonies. I never saw so much swarming; the want of room did not seem to make any difference. Those colonies worked for extracted were almost as bad as any. I worked two together, and the sequel shows that it was a good scheme, for honey was not very plenty, only just enough to stimulate them to swarm. But on July 1 we had a good rain; basswood was just in bloom, and what honey they got for me they gathered in about seven days, except about 400 pounds of fall honey, which is more than I have had for a number of years. My surplus is 2,500 pounds, 600 pounds in sections, and the balance is extracted honey, but it is almost all fine and white. I never had my bees in better condition for winter. I have the surplus arrangements all off, and shall feed up a few colonies that have been worked for extracted honey; but those worked for comb honey have plenty, and some of them could spare a little. I hope to realize a good price for my honey, and I notice that it is generally conceded that honey will command a high price.

Bug-Juice for Winter Stores.—W. Mason, Fillmore,⊶ Ind., on Sept. 19, 1887, says:

The drouth was broken on Aug. 15, and since then the showers have started the bloom on several plants. Bees are gathering some honey, and are getting in fair condition; but at this writing the bees have taken to the burr-oak leaves, gathering the bug-juice or honey-dew stuff at a fearful rate, and will fill their hives in a short time. The leaves are dripping with it. There is plenty of bloom to work on, but it is neglected by the bees. Will this prove to be bad for wintering? I have greater fears in less copious feeding of sugar syrup. Will it prove to be a remedy, however? A great deal is being stored in the upper story, which will be removed later. What would you do? Extract it and feed?

[Extract the bug-juice and feed sugar syrup, is the best advice we can give. Thin, sour honey is just as bad for winter stores as bug-juice. Be careful not to have the syrup too thin.—Ed.]

Thoroughwort, Asters, etc.—Eden M. Coombs, Memphis,♀ Ind., on Sept. 19, 1887, writes:

I wish you would name the honey-plants that I send. No. 1 has been secreting nectar for about two weeks, and some colonies are beginning to seal it in the upper stories, gathered, I think, mostly from this plant. There is a great deal of it, and I have seen as many as a dozen bees on a plant at a time, and they work on it the entire day. The plant grows from 1 foot to 6 feet high; those of 1 foot have generally only one stalk each; larger plants have several stalks from the same root. Each stem has several laterals, each one throwing out small, short stems, and hundreds of blossoms.

Plant No. 2 is called by some here, the "last rose of summer." It is just now beginning to bloom, and secretes nectar for about three weeks. It grows on an average about 20 inches high. There are "oceans of it," and if it secretes nectar like it has in former years, I may be able to take some surplus honey yet this fall.

We have considerable goldenrod, but it is not as good as the two above-named plants here, although the bees seem to work on it better this year than usual. We also have heart's-ease and Spanish-needle. We have had a gentle rain of a day and a half duration, that will make the bees "hum, unless it should continue to be wet and cool. Let the name "extracted honey" still be *extracted honey!*

[No. 1 is thoroughwort, also called boneset (*eupatorium*). No. 2 is one of the numerous family of asters (*tradescanti*), or Michaelmas daisy. Both are excellent honey-producers.—Ed.]

Bee-Cellars, Clover and Goldenrod.—James Shaw, Reed's Landing,⊸ Minn., on Sept. 18, 1887, writes:

I have a bee-cellar dug in a bank. The temperature was down to 37° at times last winter, and my bees wintered well; they came out strong and healthy. 1. Will you please tell me whether it would be advisable to raise the temperature by using an oil-stove with a 2-inch pipe running into the ventilator.

2. What season of the year is best to sow clover? Will it seed itself after it is started? I wish to raise it for bee-forage.

I have 10 colonies, and they will average 75 pounds each. This is my second year in bee-keeping. I have used small starters this season, and the bees have made some crooked combs. I like large starters the best.

3. I send you a branch of a plant that the bees are working strong on. I wish you would tell me its name.

[1. It is preferable to have the temperature a few degrees higher, and it can be easily raised by the judicious use of an oil-stove.

2. Sow white clover seed in the spring broadcast, 5 or 6 pounds to the acre; if for grazing, mix with timothy or blue grass, using 3 pounds to the acre. It will re-seed the ground after once sowing.

3. The bloom is that of one of the numerous goldenrods (*solidago*), and is excellent for honey of a rich, golden color.—Ed.]

Market Nomenclature.—C. F. Muth & Son, Cincinnati,♀ O., on Sept. 20, 1887, write:

In reply to a number of inquiries, allow us to make the following explanations: The expression, "On arrival," means that honey (like other goods) brings the stipulated price at the wharf or other depot here. It is the net price, no charges being made for hauling, storage, commission, etc. It does not mean that any one will buy all the honey that arrives at the wharfs or depots at that price. Buyers take all they want at the range of those prices. "In a jobbing way" means the price which honey brings when it passes from the hands of the wholesaler into those of the retailer.

The demand is good for extracted honey from manufacturers who principally buy Southern honey. But few will buy clover or other varieties for manufacturing purposes.

Comb honey brings more now than it will bring next Christmas, if our experience of former years is a criterion to go by. Editors are wrong in advising bee-keepers to hold their crop for higher prices. If we are wrong, please let us know in due time, and we shall acknowledge our error.

[We never advised any bee-keeper to hold comb honey till Christmas, but we do think that October is early enough to put it on the market.—ED.]

Feeding Brown Sugar to Bees.—F. Lederman, Steinmetz,⊙ Mo., on Sept. 20, 1887, writes:

My bees being short of stores, I have to feed. For that purpose I bought a quantity of light brown sugar (see sample), it being a little cheaper than white granulated. I prepared it as Mr. Heddon advises in the BEE JOURNAL. Having boiled one barrel of sugar, I began to feed the bees on the top of the hives, but the bees "snuffed" a little at that stuff, and then left it alone. Thinking that the syrup might be too thick, or had too much acid, I made it thinner, but it was useless; the bees took a little more of it, and when tasted, did not touch it a second time. Please help me solve this puzzle. Had I means to buy other white sugar, it would be well, but I cannot afford it. I am an old man. In preparing the sugar, and in the management of feeding, I have made no mistake.

[As our correspondent says he used the Heddon method (all but getting the kind of sugar therein stated), we referred the matter to him for reply. —ED.]

In the spring when brood-rearing is rife, bees would take this syrup, but now (especially if a little cool) they will not touch sugar syrup with the cane flavor. I tried that on syrup bought at a grocery, that was pure cane, for I presume you are aware that a pure cane syrup can be bought at less price than even the common glucose mixture. Now if the bees still reject the syrup, Mr. Ledermann had better boil it down until it will stir to a "grain," and use it up in cooking. Why did he not *wholly* follow my directions, and buy granulated sugar? He has now found that the further way around is the nearest way across.—JAMES HEDDON.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

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At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

E. Duncan Sniffen, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2 00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Mr. Elvin S. Armstrong, of Jerseyville, Ills., has for several years made a large exhibit at the St. Joseph, Mo., Inter-State Exposition. This year his exhibit included colonies of Italian bees, uni-comb observation-nuclei, with beautiful queens, large and well-marked. A grand display of comb and extracted honey, the latter put up in the most approved small packages of all kinds. An exhibit of apiarian supplies which was very creditable and diversified.

His hive and section-case exhibited, was a marvel of neatness, and almost perfection itself in all its essential features.

His use of the T-tins in the surplus-section cases is very commendable; they serve as dividers as well as supports for the sections—the whole case is capable of being invertible at will.

The manipulating side of the section-case, as well as the brood-chamber of the hive, is easily operated and can be adjusted instantly.

◆

Conventions.—The time for holding Bee-Keepers' Conventions will soon be here, and we cannot give any better advice than this: Let each one attend who can do so, and take part in making these meetings interesting and instructive. If you have not already obtained the "Bee-Keepers' Convention Hand-Book," do so at once to post yourself up on how to conduct such meetings correctly. It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for Discusson—List of Premiums for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents. We will club this book and the AMERICAN BEE JOURNAL for one year for $1.30.

◆

Will you Exhibit at the Fair? If so, we will supply you all the copies of the BEE JOURNAL that you may desire to distribute to the bee-keepers you may meet there. We also have colored posters to put up over exhibits of honey, wax, supplies, etc. Send for them early, so as to be sure to have them on hand in time. They will cost you nothing, but we should like to have you get up a club for the BEE JOURNAL, if you can possibly do so.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers**, will please to state it plainly, or they will not be sent.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 18@19c.; 2-lbs., 18c.; dark 1-lbs. 15@16c., and 2-lbs. 15c. Receipts are light and prices tending higher.
Sept. 23. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections, 18c. No call for dark comb. Offerings are small of all kinds.
BEESWAX.—23c. R. A. BURNETT,
Sept. 7. 181 South Water St.

DETROIT.

HONEY.—Best white comb brings 16@18c.
BEESWAX.—23c.
Sept. 20. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.: 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.
BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c.
BEESWAX.—25 cts. per lb.
Sept. 16. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 5½@5¾c.; amber colored and candied, 4¾@5¼c.—White to extra white comb, 12@15c.; amber, 8@11c. Receipts light and prices firm.
BEESWAX.—17@21c.
Sept. 9. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5⅝c.; light amber, 4⅜@5c.; amber and candied, 4¼@4⅜c. Receipts light; poor crop.
BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-lbs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c., 2-lbs., 15@16c.: dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.
BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 13@14c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 6½ to 7c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Sept. 22. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds, glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.: 2-lbs glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@6c. Demand very good.
Sep. 21. F. G. STROHMEYER & CO., 122 Water St.

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 16@18c. Demand for extracted in jars and bottles is opening early and well. This market to a great extent is governed by New York prices.
BEESWAX.—24@25c.
Sept. 20. ARTHUR TODD, 2122 N. Front St.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

WORK **FOR ALL. $50 A WEEK** & expenses paid. Outfit worth $5 & particulars free.-**P. O. Vickery**, Augusta, Me.
39A8t

FOR SALE in CALIFORNIA.

ON account of the death of the proprietor, Mr. J. D. Enas, a RANCH of 240 Acres, partly Fruit—80 Colonies of Bees, Steam Machinery for the manufacture of supplies for bee-keepers (a well-established business). The Land will be sold in 40 or 80 acre tracts. Also, Stock, the Farming Implements, and a large stock of Apiarian Supplies. For particulars, address

MRS. J. D. ENAS, (P. O. Box 306),
38A6t NAPA CITY, CALIFORNIA.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

PRICES REDUCED!

ONE Warranted Queen...............	$ 75
Six " Queens	4.00
Two dozen " "	15.00
Select Tested Queen....................	1.50

☞ Orders filled by return mail.

Address, **J. T. WILSON,**
31Dtf NICHOLASVILLE, KY.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

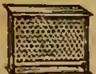
13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, $1.25. Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.

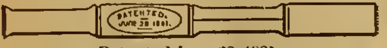
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.



PATENTED JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

QUEENS FOR BUSINESS

UNTIL further notice, I will send by return mail, safe arrival guaranteed, Good QUEENS from my best strains noted for gentleness and honey-gathering qualities, viz:

1 Queen	$0.80
6 Queens	4.50
12 Queens	8.00

Address, WM. W. CARY,
29Atf Colerain, Franklin Co., Mass.

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16¼x28 inches, at $12.50 per box. 12 ft. to the lb.

☞ The above is a **special offer**, and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Beautiful Italian Queens.

J. F. **WOOD** wishes to inform his former friends and patrons, that he is now filling orders promptly for those GOLDEN ITALIAN QUEENS that have given satisfaction to every customer for the past two seasons—at the low price of $8.00 per doz; single Queen, 75 cts. *I use no lamp-nursery.*

☞ Do not fail to send for descriptive Circular; if you have not my 1886 Circular, send for that too.

JAMES F. WOOD,
29Dtf North Prescott, Mass.

FOLDING BOXES.

Our Cartons *for enclosing* **Section Honey** *are the* **best** *and* **lowest priced** *in the market. Made in* **1** *piece. With* **Tape** *Handles or without. With* **Mica** *Fronts or without. In the* **Flat** *or set up.* **Printed** *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* **Circulars Free.** *Samples* **5c.**

14 oz. Glass Jars ***$5.25*** *per gross, Including Corks and Labels. 1 1-2 & 2 gross in a Case. Send for Catalogue.*

A. O. CRAWFORD.
Box 428. South Weymouth, Mass.
21D10t

NEW ONE-POUND HONEY PAIL.

THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street. CHICAGO, ILL.

GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	$1.60
" 2 pounds " "	.....	2.00
" 3 " " "	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

SAMPLE COPIES

OF THE

AMERICAN APICULTURIST

sent free. Address,
39Atf "API," WENHAM, MASS.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

TODD'S **HONEY-CANDIES** sell well at Fairs—average wholesale price 16c ℔ lb.; retail 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located In a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

HURRAH for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J. H. Martin, Hartford, N.Y.
6W(3tm)40t

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S. etc., and published by John Huckle, King's Langley, Herts, England.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Oct. 5, 1887. No. 40.

October comes across the hill—
Like some light ghost she is so still,
  Though her sweet cheeks are rosy;
And through the floating thistle down
Her trailing, brier-tangled gown
  Gleams like a crimson posy.

The goldenrod fades in the sun;
The spider's gauzy veil is spun
  Athwart the drooping sedges;
The nuts drop softly from their burrs,
No bird song the silence stirs,
  A blight is on the hedges.

◆

Mr. Thomas W. Cowan departed for home last Saturday, after visiting Washington, D. C.

◆

Mr. Ivar S. Young gave the BEE JOURNAL a call last week. He is now with Prof. Cook. From there he goes to visit Mr. A. I. Root at Medina, O. He is a thoroughly practical apiarist, and is sent here by the Government (we understand) to gather information that may be made of practical use in Norway. He is genial, and speaks the English language fluently. He is a gentleman and a scholar.

◆

"Is It the Old or Young Bees," asks a correspondent, "which leave the hive at swarming time?" Age has nothing to do with it. Those whose wings are ragged with age, mingle with those which are young and downy. The drones, too, go with the crowd to the new home selected before hand by the scouts.

◆

Extracted Honey Is Darker during a drouth, and a correspondent asks us to explain why this is so. We hardly think that the linden or white clover honey is darkened in color by a drouth, but being short, the bees may gather honey from some other bloom, and thus mix it. The red clover heads may be retarded in growth, and the bees may gather from that source, and thus darken the color. Alsike clover honey is of an amber color, and when compared to basswood is very much darker. In many places during the past season the basswood yield was exceedingly short.

"Mella" is the name of a new honey beverage just "invented" in England. The *British Bee Journal* gives the following concerning it:

> The British Honey Company, limited—who in their progress have had many difficulties to overcome, and much uphill work to accomplish—have devoted much thought and attention to this matter; and after a series of experiments have succeeded in producing from British honey and fruits a beverage, which, whilst retaining the flavor of honey in a marked degree, is quite free from the viscous properties noticeable in many of the honey beverages which have been brought before the public. The new beverage is termed "Mella," and, while of a highly effervescent character, is non-intoxicating. The taste of the honey is perfectly distinguishable when drinking it. It is prepared for the market with the aid of the most approved machinery; and, we are informed, it is intended to be retailed at a low price, thus bringing it within the reach of all classes. We advise all our readers to give this beverage a fair trial.
>
> We congratulate the British Honey Company on this success; and we trust that they will continue to be found in the forefront of those who are catering for the public in the various modes which may be adopted for the utilization of honey.

In reference to the question so often asked whether the demand for honey is increasing proportionately to the enlarged supply of ordinary seasons, our British cotemporary replies thus:

> During the past few years considerable advance has been made in increasing the number of outlets for the utilization of honey. It is but right that we as bee-keepers should acknowledge and express our indebtedness to various gentlemen connected with the Berks Bee Keepers' Association for the great interest and inventive ingenuity that they have displayed in furthering this object. In this connection we are pleased especially to recognize the services of, and the active part taken by the Rev. V. H. Moyle, of Ashhampstead Vicarage, looking upon him as we do as the principal agent in stimulating those in his vicinity to bestow their attention in this direction. In reply to a communication, Mr. Moyle sometime ago informed us that he was engaged in compiling a pamphlet setting forth the various utilities of honey. This pamphlet has not yet reached us, and we presume that it has not been published. Some such pamphlet is a great desideratum; and we consider that no one is more competent than Mr. Moyle to produce it, he having for many years devoted much time and attention to the consideration of this subject.
>
> Messrs. Huntly and Palmer, of Reading, have consumed much honey in their well-known honey-drop biscuits. Messrs. Blatch, of Theale, with their honey beverages; Mr. George, of Reading, with his confectionery; Mr. G. E. Darvil, with his sweetmeats of all kinds, containing a large proportion of *bona fide* honey; Mr. Thomas, with his honey toilet preparations; Messrs. Cross, with their various methods of applying honey in medicinal and pharmaceutical preparations, have done much towards popularizing the use of honey.
>
> Besides these, Messrs. Fry & Sons, of Bristol, have produced very nice honey chocolate tablets and creams; Messrs. Fry's (of Bishop's Waltham), honey beverages, champagnes, syrups, and cordials are well known; and our friend, Mr. W. N. Griffin of Freshford, Bath, has invented a dubbin in which honey is an ingredient, and which has been highly spoken of as a preservative of leather.
>
> Much of the honey collected in the British Isles is especially adapted for being utilized in various articles of food, beverages, confectionery, sweets, medicines, etc., possessing as it does an exquisite flavor and aroma; and in this respect we may claim that it possesses considerable superiority over foreign honeys.

Then in reference to the use of honey for manufacturing purposes, our cotemporary gives the following, which we would endorse most fully, and emphasize the sentence that "it cannot be brought too prominently before the public," so that it can be applied to manifold mechanical and sanitary purposes:

> It is of primary importance that bee-keepers, and all others interested in the promotion of bee-culture, should direct their attention to the increase of such manufactures, as by so doing they would create an increased demand for their own produce. The fact cannot be brought too prominently before the British public that honey is not only of good service in its old form of "bread and honey," but that it be applied to manifold medicinal and sanitary purposes; that it is far superior to its younger rival, sugar; and that the more varied its applications the better for the honey industry generally.

◆

Peculiarly-Shaped Cells.—In the *Canadian Bee Journal* of last week we find an editorial on the building of peculiarly-shaped cells by the bees. It says:

> We have now before us about one dozen different specimens of comb that have been cut out. These vary in size from four inches square to half the size of an ordinary comb. In these pieces there are a large number of cells of almost every imaginable shape, some oblong, a few hexagonal, and some V shaped; some have three sides, the ordinary hexagonal shape, the other three made with two forming a V running off to a sharp point; some are formed somewhat like a V, then others are as perfectly square as the bees could make them, and not a few are triangular; some are five sided, some are nearly round, some heart shaped, in fact we could hardly think of a shape that might not be found in some of the pieces. The square cells are in perfect rows two inches in width, and six or more in length, nearly all perfectly square. Most of these different cells had brood in them, and we have not been able to detect any difference between the bees hatched in these peculiar shaped cells and those hatched in the ordinary ones. It seems that some colonies are more inclined to build peculiar shaped cells than others.

◆

Honey Quotations in the market reports of the metropolitan daily papers are stupidly erroneous. Here is what the Chicago *Times* quoted a few days ago:

> Good to choice white clover honey in small boxes, 11 to 15 cents; common to dark colored, or when in large packages, 7 to 10 cents; strained, 5 to 6 cents.

Everybody should know that there has not been a pound of honey sold within three months at the above prices. They understate the market 50 per cent, and are consequently very deceptive and untrustworthy. We call upon the Chicago press to reform! Give correct quotations or none!

◆

Honey in the Boston Market is reported by Mr. Henry Alley, who visited the honey dealers there a short time ago, as being excellent in quality. He says that "the apiary of Mr. A. E. Manum, of Bristol, Vt., was well represented by a large lot of fine honey." He then adds:

> The prices, also, surprised me as much as the quantity and quality. The second quality is selling at wholesale at 18 cents, and the best comb honey at 22 cents, and is retailing at 25 cents per pound.

◆

Canada's Honey Crop is estimated to be an average of only 20 pounds to the colony. Many colonies will need liberal feeding to carry them over the winter in safety.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Building a Stone Bee-Cellar.

Query 477.—I am building a stone bee-cellar all under the ground, 11x15 feet, by 6½ high, with a work shop above. 1. Is a sub-earth ventilator necessary? 2. For such a cellar, what size and how far under ground ought it to extend? 3. Is it necessary for the dead-air pipe to connect with a stove-pipe to give it vent? If so, what size? 4. Having only 10 colonies to put in, would it be advisable to get more to put in, in order to keep up the temperature?—C. C., Ont.

It is not necessary with your number of colonies.—J. P. H. BROWN.

1. No. 3. No. 4. No, it is not necessary.—DADANT & SON.

I have no experience with cellar wintering; and my opinion would be worth but little on the subject.—G. W. DEMAREE.

I answer no, to all of them. A cellar, to be right, should maintain an even temperature at the right point without bees.—G. M. DOOLITTLE.

1. Not for 10 colonies. Ventilation through a stove-pipe appears to be all that is necessary where many colonies are wintered in a cellar.—G. L. TINKER.

It will not be necessary to use a sub-earth ventilator in your case; but it is a good thing. To get the benefit of such a pipe, it should be at least 150 feet long, and 6 feet under ground. 3. It is not necessary to connect with a stove-pipe, yet it will work better with such a connection. 4. It will be all right with your 10 colonies.—H. D. CUTTING.

Having never wintered bees in special depositories, I can only give theoretical answers to the above, and such will be of no more value than my particular ideas based on the experiments of others are worth.—J. E. POND.

1. Hardly for 10 colonies, but for 40 colonies I think a sub-ventilator would pay well, and perhaps 10 colonies would be the better for it. 2. The more of it is under ground the better. 3. I think not. All that is necessary is to have a pipe for outlet a little smaller than the sub-ventilator. 4. I do not believe that a larger number would keep better.—C. C. MILLER.

Ventilation is probably necessary if a large number of colonies are in one cellar; but I do not *know* that it is. Sub-earth ventilation will assist in keeping up the temperature, if the cellar must be ventilated. I cannot say as to the size and length of the pipe. If the air in the cellar is warmer than the outside air, as it certainly will be, there will be no necessity for connecting the escape pipe with a stove, *i. e.*, if your pipe is *large* enough. How large it ought to be I do not know. If the cellar is entirely under ground, it will be warm enough for even one colony.—W. Z. HUTCHINSON.

I should have the sub-earth ventilator. I am now building one all under ground, and my ventilator is 6 inches in diameter, and 200 yards long. It is better to have heat to effect a change of air, but a tall chimney from the base of the cellar to 3 or 4 feet above the roof will do very well. With 10 colonies you need no ventilator; only keep the temperature right.—A. J. COOK.

1. No, but it may be good in some cases, but I must know more to that effect before I go to the expense of making one. 2. I do not know. 3. It is better; that is the way I have mine. I use 6-inch stove-pipe. 4 No, I would keep up the temperature in some other way. With that number of colonies, you do not need any ventilators at all.—JAMES HEDDON.

Treatment of Partially-Filled Sections.

Query 478.—What shall I do with sections that are only partially filled at the end of the honey season?—T. J., Pa.

See pages 15, 16 and 32 of "The Production of Comb Honey."—W. Z. HUTCHINSON.

Extract the honey and keep the sections till next year.—C. C. MILLER.

You can extract the honey and keep the sections until next season.—H. D. CUTTING.

Keep them over until the next honey season, and then use them.—G. M. DOOLITTLE.

Extract what honey there is in the combs, and put them away for next year's use.—JAMES HEDDON.

Extract them, let the bees clean them out nice and dry, and then pack them away to use another season.—J. E. POND.

I would either place them on colonies that needed stores, for the bees to clean out the honey, or I would extract it, and then place them away for next season.—J. P. H. BROWN.

Extract the honey and put them on the hives for 2 or 3 days, more or less, to be cleaned up. Or else keep them for next season's use. They make good baits for the supers.—DADANT & SON.

If your bees need feeding, and your hives have loose bottom-boards, you can feed the honey out of the partly-filled sections by tiering the section-cases underneath the brood-chambers. To induce the bees to carry the honey up into the brood-combs, I scratch the caps of the honey by means of a paddle with some tacks driven through near its end. If you have no need of feeding it out in this way, you can extract the honey and save the combs for next year.—G. W. DEMAREE.

I keep my partly-filled sections carefully protected from dust and mice, usually in the cases, for use another year. No matter if they contain honey when put away; if placed on the hives a short time before the honey-flow begins, it will be taken out and used in brood-rearing. Sections that contain honey should be placed in the house in a warm upper room to prevent candying. There is no need to extract the honey from them.—G. L. TINKER.

After extracting the honey, let the bees "clean them up" by putting them back on the hives for 2 or 3 days, then pack them away carefully for next season's early use.—THE EDITOR.

Too Much Drone-Comb.

Query 479.—1. My bees have carried a swarm of drones all summer. I have had a good increase of bees but very little surplus. There seems to be an unusual amount of drone comb. What is the remedy?—A. C., Minn.

Take out the drone-comb and replace it with worker comb or comb foundation of the worker size.—G. M. DOOLITTLE.

Cut out the drone-comb and melt it into wax, and fill the frames with worker foundation.—W. Z. HUTCHINSON.

Cut out the drone-comb and put in foundation. Also see that there are no old and feeble queens.—J. P. H. BROWN.

Cut out and melt up the drone-comb, replacing it with foundation. If your queen is an old one, replace it with a young queen.—H. D. CUTTING.

Cut out the drone-comb early next spring, and replace it with worker-comb as much as possible. It pays !—DADANT & SON.

Use foundation, and prune out the drone-comb. We permit very few drones in our apiary.—A. J. COOK.

My remedy is to remove the drone-combs early in the spring, and give worker-combs or frames filled with foundation in their places. The drone-combs can be used for taking honey with the honey extractor, if queen-excluders are used to confine the queens to the brood-chamber.—G. W. DEMAREE.

Remove the drone-comb and replace it with worker; if you do not desire to keep the queen for some particular purpose or fancy, remove and replace her also.—J. E. POND.

Remove the drone-combs, and replace them with worker-combs, or full sheets of worker foundation. I rarely ever see a drone in my hives, except in such as I am rearing them intentionally.—JAMES HEDDON.

No doubt there is too much drone-comb in the hives. This would not matter with a strain of bees bred up from the Syrian or Cyprian stock, as they do not usually rear many drones unless they have old queens, though there is much drone comb in the hives. But black bees, and all bred from them, will generally rear hosts of drones, if there is much drone-comb. The Carniolans have the same habit. The remedy is to change the stock, or cut out the drone-comb and supply worker-comb in its place.—G. L. TINKER.

Cut out the combs that are largely drone, and fill the empty frames with worker foundation. The combs which have smaller pieces of drone-comb may be saved in this way: Cut out the drone-comb and fill up with pieces of worker-comb taken from the combs that have been cut out of the frames. —C. C. MILLER.

Supersede the queen, and replace the drone-comb with worker-comb foundation.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○+ east; +○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Securing Apicultural Statistics.

JOHN H. LARRABEE.

The article which my question on page 581 brought out, has greatly interested me. I know that many kinds of statistics were of necessity somewhat incorrect, but that they should be as grossly so as intimated by Col. Wright, was somewhat of a surprise to me. The statistics as to population, and a few other prominent points of the census, appear to be about all there is approaching accuracy in the whole system.

The desirability of obtaining accurate statistics is not to be disputed, but the ways and means of obtaining them do not, from appearances, seem to be known. The census interests all classes. The merchant is interested in the imports and exports, and in the growth of trade here and there, or upon this and that commodity. The contractor and builder is watching the lumber and brick trade. The M. D. wants reliable and immediate reports of births, deaths, and the various diseases, epidemic, constitutional and circumstantial. The farmer needs reliable crop reports; and the bee-keeper wants to know how much honey, how many colonies of bees,etc.

In England reforms come slowly. The English constitution was built up by centuries of experience and growth. The Constitution of the United States was evolved at one grand sweep, yet Gladstone remarked, in effect, the other day, in declining an invitation to be present at the Centennial of the signing of the Constitution, that "he knew of no greater or more perfect stroke of statesmanship brought forth at one time in all modern ages, than this same Constitution." It is thus with the Americans now. Everything is done upon the impulse of the moment, yet God has so far graciously favored us, and our growth has been substantial.

The census will doubtless in a few years be the envy of foreigners. Bee-keepers must be on hand with a plea for their fair share of recognition. In any other year I should have said that we needed a Producer's Association. Among the first labors of such an association should be the securing, as far as possible, a reliable census of bees and honey. The *how* to bring it all about would come with the effort, for "where there's a will there's a way."

The existing statistics, so meager and so manifestly incorrect, are a fit subject for ridicule. Bee-keepers are an intelligent fraternity, and very nearly accurate reports could be obtained, could all be interrogated. Could printed questions be presented, through secretaries, to all the bee-associations in the United States, and such reports be collected and compiled, a much more valuable record than any existing would thus be obtained.

I hope that the question will be agitated until some system is inaugurated tending to the obtaining of accurate reports of the progress of apiculture in this country.

Larrabee's Point,+○ Vt.

[By request of the Commissioner of the Census in 1880, the editor of the AMERICAN BEE JOURNAL prepared for the Census Reports an article showing the value of the crops of honey and beeswax, and the importance of having correct statistical reports thereof every year. The article was acknowledged, and it was stated that it would be incorporated in the Census Reports—but, alas, it never appeared. Perhaps Col. Wright will do better next time, now that he sees the injustice he has been doing to the public in the past in such matters.

As to what the proposed Producers' Association could do in the matter, we are not prepared to state. That is yet an *unknown* and *untried* measure.

The great drawback about getting correct reports from secretaries of local societies, is that not one-tenth of the bee-keepers, even in the territory occupied by a local society, ever attend its meetings, or report in any way to it.

This is another question which we may well consign to the North American Bee-Keepers' Society's meeting next November. It is worth while to give it a thorough investigation, and if possible *evolve* a valuable method of obtaining correct statistics.

Perhaps Dr. Miller, the President, can give us light on the "how" of it. He has had lots of "experience" in trying to get full and correct statistics.—ED.]

For the American Bee Journal.

Hives for Observation.

E. D. KEENEY.

MR. EDITOR:—In the editorial columns of the AMERICAN BEE JOURNAL for Sept. 21, 1887, you mention some Observation Hives which Huber never saw; which you call "uni-comb glass hives." Now, I want to see an engraving and description of such hives in the AMERICAN BEE JOURNAL. What do they cost? Where can they be obtained? I think many others will be interested in this matter, and desire the information as much as I do.

Arcade,+○ N. Y., Sept. 23, 1887.

[The questions of our correspondent are answered with pleasure, for we want to see Observation Hives more common at Fairs, Expositions, and Shows. In that way we can educate and encourage the people to consume more honey.

It is our aim to make honey a staple product. To this end we have endeavored to popularize the consumption of honey by the masses, as well as to raise the standard of production, by applying correct principles and progressive art to the management of the apiary.

Public manipulations with bees,and magnificent honey exhibits are the most attractive features of State, County and District Fairs. There are many good reasons for recommending such, but the chief one, perhaps, is that those who produce honey for the market may be induced to present it in the most marketable shape; for the new methods and new ideas of practical management must take the place of the old and undesirable ones.

Bees and honey are already the great attraction at such Fairs as have given prominence to this industry—and this will become more apparent each successive year. Michigan, Nebraska, Missouri, and some other States, having tried small Bee and Honey Shows, and finding the results so satisfactory, they now have them on much larger scales.

When in Great Britain, during the summer of 1879, we found that the most attractive features of the Fairs were the public manipulations with bees, and the very large exhibition of honey of captivating beauty. For exhibiting bees, observation hives were used—those having glass sides, through which the bees may be seen at work—the hives being inside the exhibition building, with a tube covering the entrance, and running through the side of the building, giving free passage, in and out, for the bees. Sometimes a glass box inclosing each frame, arranged like leaves of a book, with a common entrance to all of them, from the tube running through the side of the building, is made to exhibit bees. This gives an opportunity for thorough examination of the whole colony.

Prof. Cook has an Observation Hive in his study, and, by request, he has sent us a drawing of it, from which we have made the illustration, so that our readers will obtain a good idea from it and the accompanying description given by the Professor:

OBSERVING HIVES.

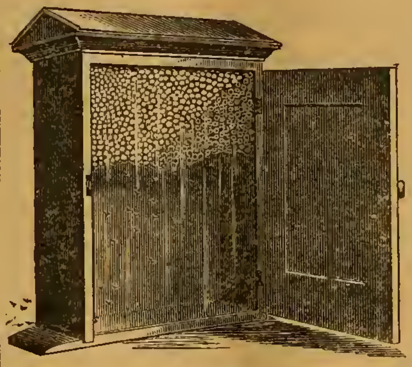
Of course every live bee-keeper will possess and read one or more of the books that treat of bees and their management. These place the whole subject before him, and, if well indexed, enable him to study any particular phase of the subject at will. He will also, if wise, take and read one or more of our excellent periodicals. These keep him versed in the progressive steps in this art, and the various discoveries and improvements can be appropriated as soon as made.

There is still another method to gain knowledge, which though, perhaps, not so full of practical aid as the above, will greatly benefit, even on the practical side of our business; but, more than this, it will enable us to confirm what we learn from the books, and will do more than anything else to exalt our appreciation of the wondrous habits and instincts of the little insects with which we have to do. It will do much to make our life work as full of wonder and admiration as it is of pleasure and profit. I refer to the possession of an "Observing Hive;" so that, with each leisure hour, we may look into the very life habits of our pets. Such observation, in any field of natural history, always excites interest, imparts instruction, and ennobles the observer.

Few experiences in my life have yielded more real pleasure and valuable instruction, than the hours spent in watching the strangely interesting labors of the bees, as studied in my library, by use of the small "observing hive," here illustrated.

I do not think we need any complex arrangement. A simple, uni-frame hive, with glass sides, which may be darkened by doors, is cheap, easily made, and will enable us to watch any operations carried on in the hive. I have even had bees in such a hive prepare to swarm. Of course, such limited quarters will not permit much increase, and so, when the brood commences to hatch out, the bees must be shaken from the frame, and it replaced with a frame of empty comb, or, better still, a frame of comb foundation. We then can watch the bees as they transform the foundation into a sheet of beautiful comb. If the bees are not gathering at the time of this transfer, we must either feed them, or give them a comb containing some honey. We may now watch, not only the wondrous fashioning of the comb, but the laying of eggs, the packing of pollen, the finding of the larval bees, and the many other wonderful manipulations, to be witnessed in the "Observing Hive."

My hive, which is correctly represented in the engraving, is neatly made of black walnut, and forms, of itself, quite a pretty ornament in my study; while, with its wondrous contents, it forms an attraction which can hardly be surpassed. It will pay every apiarist to keep such a uniframe hive, for his own edification, the instruction of his children, and the entertainment of his friends.



The Uni-Comb Hive.

At the St. Joseph Exposition last month there were two of these observation hives exhibited by Messrs. F. G. Hopkins, senior and junior, and they were more attractive than any other exhibit. The tubes, running from the entrances through the side of the building (the exhibit being in the second story), allowed the bees to work industriously, and

"Improve each shining hour"

of every day of the exhibition, greatly to the delight and wonderment of the multitude of observers.

There were something like a score of other hives and nuclei containing bees "at work" in the same way, exhibited by Mr. E. T. Abbott, Mr. J. G. Graham, Mr. W. Z. Hutchinson, Mr. Wm. Kimball, and Mr. E. S. Armstrong.

These exhibits are growing in numbers, and we hope to see the day when there are hundreds instead of scores or dozens at every Fair and Exhibition in America.

As to the cost and how to obtain them—the cost is but trifling, unless it is desired to have them *ornamental* as well as useful. While such an Observatory Hive can be made for a single dollar, twenty might be expended to make it ornamental, and hence more attractive. Any carpenter or cabinet maker could make it—for it is simply a box to hold one frame from an ordinary hive.—ED.]

Honey Leaflet.

Some Reasons for Eating Honey.

ALLEN PRINGLE.

Why people should freely eat honey can be put briefly in one sentence, to-wit: Because honey is wholesome, palatable, and comparatively cheap food. This fact in itself ought to be sufficient to ensure its general use, and no doubt it will when the fact is generally known.

Owing mainly, perhaps, to the fact that honey yields such exquisite pleasure to the human palate it is, for the most part, regarded as a mere luxury, and its valuable qualities as a food, and even a medicine, are generally overlooked. Corn meal porridge is a wholesome and cheap food, but it is not sufficiently palatable to catch many mouths watering for it. There are many excellent articles of diet that are quite neglected, simply because they do not commend themselves to our perverted tastes, everybody, however, admitting their wholesomeness.

But, because honey is so superlatively pleasant to all tastes—both normal and abnormal—the hasty conclusion is forthwith reached that it is merely a luxury to please the palate, having no special value as a regular article of diet. This popular conception is very erroneous, and must be corrected before this rich product of nature can take its proper place on the tables of all classes of people as a common article of diet.

True, occasionally a person is found who cannot eat honey. It disagrees with a few, or, as they put it, "acts almost as poison" to them. But this fact no more proves that honey *per se* is essentially injurious than the fact that potatoes are essentially unwholesome. The fault is not in the honey or potatoes, but in the subject himself. In some peculiarity of constitution, or abnormal condition of the system may always be found the true cause of the difficulty.

The dietetic elements which honey contains are quite indispensable to first-rate health in this and more northerly climates—indeed, to all outside the torrid zone. The carbonaceous, no less than the nitrogenous, elements of food are required by the human system in these zones; and as we go north from the Tropic of Cancer, more imperatively required than the latter. Now, as honey furnishes these indispensable, heat-producing elements in greater purity than almost every other article of human diet, it therefore stands at the very head of the carbonaceous ingesta.

If the animal heat of the system is produced and maintained by the combustion in the blood of the oxygen of the air taken in by the lungs and certain elements of the food, as the most eminent authorities maintain, then it is absolutely certain that for six or eight months of the year in this climate, there is no more wholesome or necessary food than pure honey. True, in our ordinary dietary we can get the necessary heat-forming materials from other sources, but we also get at the same time from these other sources disease-producing impurities—fat pork, for instance, and other oleaginous substances so common on our tables. The conclusion is, therefore, as plain as it is logical, that during the seasons of autumn, winter, and spring in these latitudes, honey is the very best food of its class which we can get. Let there be less pork, butter, and the dirty, unwholesome syrups used in the families of our land, and more honey, and the certain result will be the greatly improved health of the people. Sickness and the common ailments of life will be greatly diminished. Considering the relative wholesomeness, purity, and nutritive properties, pure extracted honey is much cheaper as a regular article of diet than pork or the average quality of market butter at the same price.

In nature's *materia medica*, honey has also valuable properties as a curative agent. In pulmonary complaints, common colds, sore throats, and that class of diseases,honey has frequently proved most efficacious. Many instances are recorded of remarkable cures by honey in such cases when other medicaments had utterly failed. That honey possesses restorative and remedial properties of an important character is already well known by the bee-keeping denizens of country places, and their neighbors, who frequently call upon them for honey in cases of sore throat, colds, croup, etc.; while the bee-keeper knows well that every druggist in every country town, as well as in the city, lays in a stock every year for medicinal purposes.

HONEY BEVERAGE.

We may also lay honey under tribute in the production of one of the most wholesome beverages in existence; to supersede tea and coffee on the family table. We give the formula and process, and advise all to try it:

Take three quarts of good, clean, wheat bran and bake in the oven till it becomes quite brown. Then add one quart of liquid buckwheat honey and stir thoroughly; put it back into the oven to bake still more, stirring it frequently until it gets dry, granulated, and very brown—a little scorching will not hurt it. Draw it the same as coffee, and use with milk and honey, or milk and sugar, to suit the taste.

This makes a perfectly wholesome and palatable drink, and the sooner it takes the place of tea in every family, the sooner the public health will improve. In the writer's family this wholesome and really palatable beverage has been on his table for years with the best results; and were a ton of tea and coffee unloaded at the door gratis, we would say, "no, thank you," so far as drinking either is concerned. The buckwheat honey is preferable to the clover in making this beverage, for the double reason of its brown color and more pungent taste.

Selby, Ont.

For the American Bee Journal.

The Lesson of Our Misfortunes.

JULIUS TOMLINSON.

A few days since, my daughter and a lady friend made a visit to the charming home of T. F. Bingham. In regard to his honey crop, Mr. Bingham said, "Tell your father that the present season is nearest to nothing of any year since I have kept bees." And this is substantially the report of every bee-keeper that I meet.

Honey is scarce—and higher in price. And the correspondents and editors of our bee-periodicals, in order to still more inflate prices, are advising all who have honey, to hold on to it. This may be good advice this year to those who have honey. There are probably enough well-to-do people, who will, at almost any reasonable price, purchase and consume the entire crop this season. But scarce as the crop is, should it be purchased by a few strong parties and held for exhorbitant prices, it may be doubted whether such prices can be obtained. Extravagant prices will restrict consumption. They will also force upon the market every available pound in existence. This is the inexorable law which is ever at work to defeat those who by creating an artificial scarcity of any commodity, endeavor to enrich themselves by extortion; examples are not wanting, which fully illustrate this statement. The collapse, not long since, of the colossal combination to control the entire wheat crop of the world, is a striking example.

One of the lessons of the situation in regard to honey is, that a scarcity of it inflates its price. This is a truism so universally admitted in regard to other natural products, that I would not offend the intelligence of bee-keepers by its statement, but for the loud and persistent call not many months since, of not a few of the bee-keeping fraternity, for a combination of honey producers, which, by some process of legerdemain, not very clearly defined, proposed to inflate the price of honey. These combination advocates are piping very low just now, and I predict that few will advocate it in the coming North American Bee-Keepers' Convention.

The present scarcity of honey will have done some good if it teaches bee-keepers that it is not combinations, but the inexorable law of supply and demand that controls prices of every product, honey included. Excessive prices can never be long maintained. Should the honey crop next season be a full one, prices must, in the nature of things, fall to their normal standard.

What bee-keepers need is bountiful crops, and a good demand at living prices. The supply is largely beyond our control, but inasmuch as we can never have too much of the good things of this world, it behooves us all to use every appliance which science and experience dictate to secure to the fullest extent the bounties of a beneficent Providence. The demand for honey is amost entirely in our hands. Combination with this end in view would be most desirable. To promote demand is a matter of business, and business methods should be employed. Honey should be advertised.

If the coming convention at Chicago would take action, having for its object the creation of an ample fund to create a "honey bureau," to scatter leaflets on honey broadcast; to advertise it in short, crisp articles in all the daily and weekly newspapers, and perhaps in more elaborate articles for the leading magazines, there can be no doubt but such a demand would be created, as would yearly consume the most bountiful supply. All this is in accordance with natural law, and if our present misfortune should teach us to obey these laws, it may prove a blessing in disguise.

Allegan, ♀ Mich.

[We have never advised the creation of a "corner" to control the price of honey. We simply wanted bee-keepers to hold their honey until berries and fruit were "out of the way," and then they would get the full benefit of the rise in values. To ship the honey before that, would break down the growing prices, and leave no one the better off.

The hint for the convention is a good one, and we hope Mr. Tomlinson will either present his ideas before the assembled body by an address, or in writing, so that they may pass upon the merits of his plan, when the subject is under consideration.—ED.]

Gleanings.

Bee-Keeping as a Life Business.

DR. C. C. MILLER.

"It seems a pity he should settle down into nothing but a bee-keeper, when he might be successful in almost any line of business he should undertake." Such expressions I have heard, when, so far as I could see, the only reasons for it were that it was thought the man might make more money at some other business than bee-keeping.

I am aware that too much has been said of the bright side of bee-keeping in the way of urging every one into it, and I have protested against it; for in nine cases out of ten, the person who chooses bee-keeping as his life-business, *merely* for the money there is in it, will meet with disappointment. But for once I want to take the other side, and say something in the way of urging the choice of this business upon a certain class.

Here is a young man about to settle down in life. His college course of study is perhaps finished (and I would urge upon every young man to get a collegiate education, whether he expects to spend his life in apiary, farm, counting-house, or pulpit); and the question is, whether bee-keeping shall be his vocation. He has aptitude for the business; what little experience he has had in it has been successful; and he would really like to spend his life at it if he thought he could make as much money at it as at merchandise, albeit the confinement of a merchant's life is not to his taste. But the matter of money stands first in consideration, and he decides in favor of mercantile life.

My young friend, you are making a mistake. In the first place, it is by no means certain that you will be one of the successful merchants. But suppose you are, and that you make double or ten times as much money as you could at bee-keeping. You go on at your business, looking forward to the time when you can retire, and enjoy life. There are events that may hinder the realization of your expectations. You may not live long enough. If you do, you will find that your tastes have somewhat changed, and that the life to which you have for years looked forward with bright expectations is mainly a disappointment. On the other hand, if you follow your inclinations, and adopt the pursuit of a bee-keeper, there is no necessity for looking forward to a certain time in the future for your enjoyment of life.

You can take your enjoyment as you go—mixed, it is true, with pain and toil, but still a life of enjoyment. You have one important advantage over the merchant; your out-door life gives you a physical vigor he cannot enjoy. He has poorer food than you, even if he eats from the same dish, for he has not the same hunger to spice it. The mere fact of existence is a pleasure to a perfectly healthy animal, be he man or beast; and the man who eats his food with a thorough relish is the better man for it, physically, mentally, and perhaps morally and spiritually.

HIGH VERSUS LOW SALARIES.

There is another view that is worth taking, and it applies to all callings—bee-keeping or what not. Compare two positions in life. A man in Chicago has a salary of $2,000, and his brother in a country village has one-half as much, $1,000. Which has the better place? Perhaps the Chicago man; perhaps not.

Throwing aside all other considerations, and taking just a dollar-and-cent point of view, if the country man's annual expenses are $600, and those of the city man's $1,700 (and there may be that difference, even when each seems to be living equally well), the result will be that the country man will lay by one-third more annually than the city man, in which case the $1,000 salary will be better than the $2,000. Suppose, however, that the annual expense in the city is $1,500, and $600 in the country. In this case, $500 is annually saved out of the $2,000, and $400 out of the $1,000. Is the salary that clears the $500 one-fourth better than the salary that clears the $400? And it is to this particular point I want to call the especial attention of the young.

Nine out of ten of the young will be dazzled by the larger salary; and when to this is added the larger annual saving, the question is definitely settled in their mind. If they think far enough ahead they may find a factor they have omitted from the problem. When the time comes to retire from service—it may never come, and it may be forced upon one before he desires it—when this time comes, the city man will be so fixed in his habits and mode of living, his family in their social circle, that he must continue his same life and same expense of living. Even if he had thought of going back to his former country life, he will now find it impracticable; the rule is, men do not.

Now let our two men be compared after the same number of years of service, say 15 years. In that time the one saving $500 per annum has $7,500 ahead; and the other, saving $400 per annum has $6 000 ahead. But what is this worth to each of them? The first, spending $1,500 per year, can live on his $7,500 just five years; and the second, spending $600 per year, can live on his $6,000 just ten years. So you see, when looked at from this point of view, the $1,000 salary is worth just double as much as the $2,000. In other words, the $2,000 man lays by each year enough to support him four months, while the $1,000 one lays by enough each year to keep him eight months. Some of you young men that are itching to get into places to make money faster, think this over. It may make you a little more content where you are.

Marengo, δ Ills.

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For the American Bee Journal.

The Season in Northern Ohio.

"HONEY-DEW."

I attended the Erie County (Ohio) Fair, and it was a measurable success in everything except the display of bees and honey. There was not a single exhibit on the Grounds. There are two reasons for this; first, the small premium offered, which was only $1.50 for the largest and best display of honey. Is that not magnanimous? The other reason is, that there is no honey to exhibit. This is the poorest season that I have ever experienced, and I have kept bees for thirty years. There is no surplus on account of the drouth, yet those who know how to take care of bees are hopeful, as we have had rains that help the bees for winter; and those who feed a little will winter their bees in good condition, and be ready for next season; while others who are discouraged by the present failure, will cease to keep bees, leaving more room for those who take the bee-papers, and profit by their teachings.

I thought that I knew something about bee-keeping a year ago, or before I began to read the BEE JOURNAL, which my generous sister subscribed for, and donated to me. But I found that I was at the foot of the ladder, which I am trying to climb by the aid of the BEE JOURNAL. I see plainly that my past is rich in nothing but experience, and that a succession of failures, yet I am hopeful, and expect soon to be on the second round of the ladder, by the aid of such able writers as those who give their successful experience.

This is not a very good honey locality. Bee-pasturage is uncertain from other causes than drouth. In the spring the fruit bloom is short, from two causes, namely, no bloom, as was the case last spring, and the other is plenty of the same, but too wet, bees not being able to gather the nectar. Another reason for failure is honey-dew (we had none this year), which befouls the good, and spoils all. Some call it "bug-juice," but I differ from them, and call it "honey-dew," befouled by the insect; honey-dew being the cause of the insect, not the insect the cause of honey-dew.

Sandusky, δ O., Sept. 23, 1887.

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For the American Bee Journal.

The Iowa Bee-Keepers' Convention.

DR. JESSE OREN.

The Iowa State Bee-Keepers' Association met in their large tent on the Fair Ground at Des Moines, on Sept. 7, 1887, at 10 a.m. President J. F. Spaulding, of Charles City, Iowa, called the meeting to order, and then by the request of the Society gave the following very interesting address on bee-keeping:

THE PRESIDENT'S ADDRESS.

Another year is numbered with the past, and though disastrous to those engaged in our calling generally, as viewed from a financial stand-point, let us hope that the lessons we have learned by the experience of the present peculiar season, may not be lost sight of in the future.

According to the best information that I can get, bees in this State came out of their winter repositories in more than average condition last spring. We had an unusually favorable spring until the fruit bloom appeared, when the weather became so warm that the flowers were almost barren of honey; and as we began to look over our pastures to see how the white clover was coming on, we were filled with apprehension (as this was our main reliance for surplus honey), to find that the severe drouth of 1886 and the spring of 1887, coupled with the hard winter, had ruined the white clover in most locations for the present season; in a few favored spots, where it was not killed outright, it made a feeble growth, and mostly failed to secrete honey for the bees, and this to such a degree, that when the usual swarming time arrived, but few swarms issued.

Some two weeks earlier than usual the basswood bloom appeared in profusion, and in the northeastern part of the State, it yielded considerable honey for about nine days, in which the bees filled their hives, and some of the strongest in reach of the basswood, secured a small surplus; since this they have have rather depleted than augmented their stores, and, I think, have generally failed to keep up the full strength of the colony.

I had some hopes that the autumn flowers—buckwheat, goldenrod, asters, Spanish-needle, etc.—would make the season's result more satisfactory, but these hopes have not been realized, and the season of 1887 is practically closed, and failure is rather the rule than the exception with most of us, and our profits are in the experience rather than the "hard cash." The future alone can tell how much we shall realize. No doubt many will consider that their deposit of this kind of capital is already too large, and decline to add to it by continuing to labor at it in the future, and although it is called a fascinating pursuit, for many the charm will be broken; they will retire in disgust to more promising fields, and the army of bee-keepers will be kept up by recruits, who will bring in all the high hopes, energy and enthusiasm that we lose in the retiring ones.

But what are some of the lessons learned that can be of profit in the future? First, to increase our stock from the best workers, and weeding out the queens of the poor working colonies. Second, to do everything to have our colonies strong early in the season; have the hives, sections, foundation, etc., ready so that we can give our bees the closest attention during the honey season; take one or more bee-papers, and read and profit by the standard works on bee-culture: talk with your bee-keeping neighbors, tell them what you know, and learn of them what they know, and perhaps while the world's stock of knowledge will not be greatly increased, it will be much more evenly distributed. Devise means, if possible, so that thieves will not plunder the hives, making detection so probable that even "sneak thieves" will find it easier to earn their honey than to steal it.

Did you ever, on visiting the bee-yard in the morning, find the hives uncovered by the dozen, the sections scattered all over the yard, the brood thrown at random, all the honey cut out and carried away? Now if I knew that Job had this experience when his patience was being tried, and stood the test, I should have a much higher opinion of him than heretofore. I must acknowledge that I would like to put about a pint of lively hybrids next to the hide of the thief. Seriously, this is a great obstacle to success with bees, and will tax our ingenuity to overcome it, and if any one has had any experience or ideas that are likely to profit us in this respect, just let us have it. Horse-stealing has become so dangerous to the stealer that it has been nearly abandoned, and cannot we make it "too warm" for the thieves of our bee-yards?

Perhaps it may in a measure contribute to our financial success to take more honey than usual from the brood-chamber of the hives, as honey is to sell at a good, round price, compared to what we have been getting for several years; and if we leave enough honey to supply the colonies until we take them out of winter quarters, we can then supply the deficiency with less costly food than honey. I purpose to do this to as great an extent as safety will allow. We have this to encourage us, that notwithstanding there was such a large surplus last season, and the price declined to so low a point, honey was introduced in many homes where it had been a stranger, and a demand has been created that will take tons and tons of honey to supply in the future.

The tendency of the times is to mass the production of honey in the hands of specialists, which I think is best for all parties concerned. But some one may say, had we better rely upon bees and honey for the main chance? The most I can say is, according to your ability and enthusiasm be it unto you; and although you may not become an Astor, a Gould, or a Vanderbilt, you will not likely become a Boss Tweed, a Mackin, or a McGarigle.

The officers elected for the ensuing year, were J. F. Spaulding, President; Mrs. O. F. Jackson, of Sigourney, Vice-President and Corresponding Secretary, and J. W. Moore, of Des Moines, Recording Secretary. The attendance was not as large as in former years. No honey, no money; no money, no enthusiasm; no enthusiasm, no attendance. The exhibit of honey at the Fair was very good, notwithstanding the failure of the honey crop.

Mt. Auburn, Iowa.

Rural New Yorker.

Feeding Bees for Winter Stores.

O. L. HERSHISER.

All prominent apiarists agree that the best substitute for good honey for bee-food is pure, granulated cane-sugar, and some claim that cane-sugar is superior to good honey, if the latter has much pollen in it. Those who find it necessary to feed their bees need apprehend no serious results if they use the best quality of cane-sugar, while a food of poor quality is almost sure to result disastrously.

To prepare the food, dissolve the sugar in one-third of its weight of water. Where a small quantity is needed, it can be easily made by heating on an ordinary stove, but this method is slow and tedious if a large quantity is needed. In the latter case, if one has access to a jet of steam, the food can be prepared very rapidly by the following method: Weigh out the sugar and water, and place them in a barrel or milk-can. Get a piece of gas-pipe through which to conduct the steam. It is necessary to have an elbow or joint of hose so the pipe may have a right angle in it. Thrust the pipe to the bottom of the vessel, and turn on the steam. In a very few minutes the sugar will be dissolved, and a syrup of the right consistency formed. By this method a barrel of sugar can be converted into syrup in less than half an hour.

It is necessary that the syrup be as thin as the above formula makes it, so that the bees may store it rapidly. It will be seen that it is a cheap food, the weight of sugar being increased by one-third its weight of water, making a composition worth two-thirds the price of sugar.

The amount of stores sufficient to winter a colony of bees is quite variable in different seasons, and also in different colonies in the same yard. If the conditions of temperature, moisture, food and quiet are just right, a strong colony will winter on 15 pounds, and I have known colonies to winter on much less. I have heretofore aimed to have 30 pounds of good food in each colony, but have been obliged to remove a portion of it in the spring to give the queen more room to lay. I have decided that 25 pounds per colony is plenty, when they are otherwise well cared for.

If the hives in an apiary are nearly uniform in style and weight, when empty, the apiarist can, by comparing the weight of a hive containing sufficient stores, with the other hives, tell how much food each will need, without opening them. If hives are not uniform in weight, or it is not practical to weigh them, the amount of stores can be ascertained by examining each comb. After one has looked over a few colonies he can, by a careful examination, tell within a very small amount how much honey a hive contains. Often by an exchange of combs in different colonies, one of which has more honey than is needed, the other less, both can be given the right amount of stores. In feeding for winter the required amount of food should be given as fast as the bees can store it. If the feeding is prolonged, brood-rearing will begin, and an additional amount of food will be required to feed the young bees reared under the abnormal conditions. Strong colonies will store from 6 to 10 pounds per day, and often more.

The proper season for feeding for winter is during the warm days of autumn, as soon as the honey-flow for the season has ceased. Feeding should be done after sunset, so that it can all be stored during the night. If fed during the day when the bees are flying, robbing is liable to result. I would put especial emphasis on the caution to prevent robbing!

No one but those who have experienced it can form any idea of the perfect bedlam which an apiary presents when the bees get to robbing in earnest. At such times it requires prompt action, and the best skill and thought of the apiarist to prevent losses. If by any means colonies should get to robbing, put a good bunch of hay or grass tight against the hive-entrances of all the colonies which seem to be affected. The robbers will become confused in trying to pass through the hay into the hive, and the bees will be able to make a more successful defence of their home. Perhaps a more effectual remedy is to completely cover the affected hives with sheets or clothes of any kind, thus barring either egress or ingress. When the robbers find themselves cornered they are quickly subdued.

A good and cheap method is to remove from the brood-chamber one or two frames containing the least honey and no brood, and replace them with a division-board, which is narrow enough to leave a space of three-eighths of an inch between its lower edge and the bottom of the hive. There should be a space of at least three-eighths of an inch between the division-board and the wall of the hive. This space may be enlarged according to the amount of vacant room. Fold back the quilt or cloth-cover of the brood-chamber tightly upon the division-board, to allow the bees to go up. Now put a heavy piece of duck or enamel cloth, of the same size as the brood-chamber, over the cover to the latter. Make this basin-shaped by placing sticks along the under-edge of each side, and pour the syrup into this basin. I have practiced this method in my own bee-yards for several seasons, and have had the best of results. It has the advantages of being cheap, is adapted to all styles of hives with tight or loose bottom-boards, permits of no loss of heat from the brood-chamber, while the receptacle is easily and quickly filled by the operator, and the capacity can be made of suitable size.

Bees will winter better on six or seven Langstroth frames than on a greater number, as the food is within easy reach of the cluster, and there is less space to keep warm.

For the American Bee Journal.

Ants in Honey-Rooms, etc.

WILLIAM OLDFIELD.

I have lately been reviewing some recent numbers of the American Bee Journal, whose excellence, practical teaching, and current information, in all respects, upon matters relating to the apiary the world over, and especially relating to the whole of this country, have induced me to become one of its constant readers.

GETTING RID OF ANTS.

I think that I can furnish a fairly perfect remedy for preventing the invasion of any species of ants into honey-rooms, or, in fact, into any other store-room. It is a fact that ants of all species have the utmost aversion to, and are repelled by the odor of turpentine. I have never found an instance where ants would cross a narrow width of turpentine, and a piece of rag or paper saturated in turpentine, and bound around the legs of any stand, or table, will frustrate every attempt of ants or other predatory insects to reach the honey-stores, or whatever other naturally enticing food-products may be placed thereon. In a pantry or store-room, sheets of coarse brown-paper previously steeped in spirits of turpentine, and laid upon the shelves where honey or any other product liable to encroachment and injury, that is not of a nature, however, to imbibe the turpentine odor, will speedily cause a cessation of attack.

RE-NAMING HONEY.

I dare say that already more than a sufficient number of suggestions have been made regarding the somewhat vexed question of a new technical term for pure honey, mechanically expressed from the comb; that in rendition of exact description and meaning shall define more clearly and less awkwardly to the public, and in market quotations, what it is *solely* intended to convey. I have felt so much interested in the discussion that I will venture a few remarks.

In the first place, I have no doubt that to call honey in the comb, "comb honey," and extracted honey, or that which is pure from any source, or means of extraction, simply "honey," which is the editor's own choice, I believe, would be the most perfect, and the simplest appellation of these twin forms of the same product, but from the fact that the general public have learned to become but too familiar with adulterated substitutes under that seductive name. A specific term for extracted honey, that shall imply the same warrantable meaning to the people in the general markets, which is apparent in the mind of the apiarist in using the old term, and which implies to him, "honey, pure beyond a doubt," and yet may be more tangibly inferred in its nomenclature than is carried in the word "extracted," would still seem to be called for, and desirable in no small degree; and though difficult to devise a word that shall be not only euphonious, but shall directly imply purity of product, and carry with it to all concerned, the idea of its coming direct from the comb, free from all extraneous matter, and in itself possess the elements of popularity as a word, and afford no barrier to adoption and usage, I nevertheless hope the discussion may not be finally dropped until such a one may be originated, as may challenge fairly every objection, and disarm chiefly the criticism of all who are not opposed to change on the ground of objection to that alone.

I will then state my present ideas on the subject, and will begin by observing that the word "extracted" would directly, it seems to me, infer the source and process of the freed honey, such as it is intended to describe; but the word is perhaps too awkward to adopt. "Discharged" honey, or "ejected" honey may perhaps have been proposed before, and may neither of them be generic enough to achieve popular adoption, or supersede the use of the word "extracted" in clearness of meaning, which, however faulty, implies the use of a machine whose direct product cannot be otherwise than pure.

Why not. then, to meet the ever recurrent difficulty, coin a word which I see no reason to object to, if it meets the requirements? If this be granted, I am in favor of "comb-extracted" ("excombated" or "excomated;" "excombacted" or "excomacted"), or, again, "comb-ejected" honey. One of these compounds, formed from the Latin verbs *agere*, to drive or force, with *actum* as its pluperfect tense; and of *egere*, to expell or cast out—which with the word "comb" as a prefix or incumbent part, seems to me to fluently furnish the needed term. These, I think, are better than "mellifluent" honey, or "mellacted" honey, two other words that I have thought of.

Suwannee, ♂ Fla.

For the American Bee Journal

Market Reports of Honey.

EUGENE SECOR.

I have heretofore been in favor of the market quotations in our bee-periodicals; and when the storm of indignation gathered about the heads of commission men last winter, I felt inclined to avert it, thinking, or wanting to think, that they were doing the very best that they could do under the circumstances, to sell our product for all it would bring.

But on looking over the quotations of honey recently, I am forced to one of three conclusions: First, honey must be more plentiful in the United States than we have been led to believe; or, secondly, that too many of our producers must be ignorant of the true state of affairs, and are rushing the new crop on the market before it recovers from last year's depression; or, thirdly, that the large dealers in the cities are trying to keep prices down until they shall have stocked up.

Now, as a honey-producer myself, and with some facilities for observation by travel, and a reader of nearly all the bee-papers, I know that this year's honey crop in America will not be one-half as great as it was last. Many good judges place it much lower. Taking the State of Iowa as a whole, I doubt if there is one-fourth as much. And from all I can learn, there appears to be very little new honey on the market as yet, or, in fact, *any* honey.

I have recently visited some of our large Western cities, and find the market bare. Therefore, I conclude that the old-fogy bee-keepers are not demoralizing the market this year. Indeed, when we think of it, we might know that would be the case; for in such years as this they do not have any to sell. Now what can be said to avoid the conclusion—that the city jobbers are "bearing" the market in order to buy?

Let me quote from the American Bee Journal market report, on page

589, Sept. 14, as to price of honey in some of the leading cities. I will only notice the quotations for white honey in one-pound sections: Chicago, 18 cents; Detroit, 17 to 18 cents; Cleveland, 17 cents; Boston. 20 to 22 cents—good for Boston! New York, 16 to 18 cents; Milwaukee, 17 to 18 cents; Kansas City, 16 to 18 cts.; St. Louis, 12 cents, and Cincinnati, 15 cents.

If "the old crop is all sold out," "no white clover in market," "offerings small of all kinds," "short crop indicated," and "demand large," prices ought to be a little better than in most of the quotations. I believe, as a matter of fact, they *are* better. I think some of the best commission men are among those who advertise the least. They let their sales and returns speak for them. I have in mind one house who have sold our dairy butter for top creamery prices, and above quotations right along. I sent them a trial shipment of honey a few days ago, and instructed them to hold for 20 cents. It had barely time to reach the city when I received a telegram saying, "Honey sold—20 cents—send more quick." These men told me that they sold several carloads last year for bee-keepers who would have none to sell this year.

In conclusion I will add, don't sell honey at less than Boston prices.

Forest City, δ Iowa.

[Yes; Mr. Secor is right—the markets are bare of comb honey, and the buyers abundant and anxious. Those who have honey to sell should write for prices before shipping, or else hold it for a definite figure, as Mr. Secor did. Do not sell a pound of white honey in one-pound sections for less than 20 cents.—Ed.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Oct. 26, 27.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM
OUR LETTER BOX

Bee and Honey Shows.—H. D. Cutting, Clinton, ○ Mich., on Sept. 25, 1887, writes:

I have been attending our Michigan State Fair, and came home last evening. We have just closed the largest and best exhibit of bees, honey and supplies ever held in Michigan. The different exhibits were large and extra good. The building was full to overflowing, there being twelve different exhibitors. This department is becoming one of the attractions of our State Fair. How I wish the bee-keepers in other States would work up this matter of honey exhibitions. It would be a great help in working off the surplus, and prevent overcrowded markets.

Bees did Well.—C. W. Conner, Ashton, ○ Iowa, on Sept. 22, 1887, says:

We have had a very dry season here in the northwest corner of Iowa, but I think that my bees have done well, when I see so many reports in the Bee Journal that are so much worse. I began last spring with 8 colonies, and increased them to 25 colonies, but lost 4 by being robbed, as they were weak. I have now 21 colonies, and have taken about 300 pounds of honey. I think there will be 200 or 300 pounds more in partly-filled cases.

Partridge-Pea.—A. E. Atkinson, Steele City, ○ Neb., on Sept. 21, 1887, says:

I send you flowers and leaf from a stalk to be named. Bees work on it all day, and it remains in flower about two months.

[It is *Cassia chamæcrista*, commonly called "partridge-pea," and furnishes nectar abundantly. It usually blooms earlier than this, but has been retarded by the extreme drouth this year.—Ed.]

Poor Season for Bees.—John P. Wylie, Prairie Centre, δ Ills., on Sept. 23, 1887, writes:

This has been a very poor season for bees in this locality. There has been hardly enough honey for the bees to live on. They have gathered some honey the past week, but I think they will not get enough to winter on, so I will have to feed. Out of 44 colonies of bees I had only 4 first swarms, and 2 second swarms.

Good Honey-Flow from Goldenrod.—R. Downs, Naugatuck, δ Conn., on Sept. 21, 1887, writes:

I examined the most of my hives this afternoon, and took off about 500 pounds of pretty good comb honey from 20 hives. My bees have collected about 25 pounds of surplus honey per colony, fall count, with an increase of one-third in number of colonies. All of my colonies except 2 or 3 are in pretty good condition for winter, every hive being full of bees, with eggs and good patches of brood in all stages. There is a good flow of honey from goldenrod, which is very plentiful here, and the bees are improving every pleasant hour; they come in so loaded that they can hardly crawl into the hive. I have 24 colonies now.

Two-Thirds of a Crop.—John H. Larrabee, Larrabee's Point, ○ Vt., on Sept. 20, 1887, says:

The crop here has been about two-thirds. I have about 2,000 pounds, but some of it is not very plump looking. Bees are in good condition for winter, as honey-dew, which last winter destroyed so many bees, has had no chance this year on account of the wet weather. I consider the American Bee Journal the most conservative and correct of bee-papers.

Boring Beetles.—Jas. Jardine, Ashland, ⊶ Nebr., on Sept. 19, 1887, says:

I send a bug that I found on the goldenrod with the bees, gathering honey. What is it? I fed it some honey, and it seems to like it well.

[It is one of our most beautiful boring beetles. It is *Clytus speciosus*. The beautiful large black beetle with yellow lines across its back lays its eggs on maple trees in June. The grubs from these are white, cylindrical, footless, and tunnel the trees through and through for three years. It then pupates in the dust, and soon comes out the beautiful beetle. All beetles of this family—*Cerambycidæ*—or longicorns, are long and slim, with very long antennæ. They are graceful and handsome. The beetles feed on pollen, and like others related to it, are often found feeding on goldenrod.—A. J. Cook.]

One-Fifth of a Crop, etc.—J. W. Eckman, Richmond, ○ Tex., on Sept. 26, 1887, writes:

Bees in some parts of our State have done tolerably well. Mine have gathered about one-fifth as much as I expected, as this should have been the year for a large crop, as it has been every alternate year ever since I have been keeping bees. They are gathering now from goldenrod, and if the weather is favorable for the next month, I will get several thousand pounds yet. Please "give us a rest" in regard to the new names suggested for extracted honey. Honey is honey, and there is nothing in a name. All we want is to have plenty of it, and sale for it, and at good prices.

Preparing Bees for Winter.—Evan R. Styer, Morgantown, ○ Pa., on Sept. 23, 1887, says:

I have received only 30 pounds of comb honey this season. I am feeding my bees now for winter, and will give them plenty of stores and warm quarters, and will winter them out-doors, with a tight roof over them, open to the south, east, west and north, with the eaves closed up tight. I will put the hives within 2 inches of each other, and pack oat chaff between them, and good cushions on them inside, but only seven frames.

Sowing Motherwort Seed, etc.—B. F. Barb, Joetta,+o Ills., on Sept. 25, 1887, writes:

I bought 2 colonies of Italian bees last spring, and have had 1 swarm from the 2 colonies. I traded for 2 black colonies, which I have had to feed for two months to keep them from starving. My young Italian colony stored enough honey to keep them; the one that did not swarm gathered about 20 pounds of surplus honey. It has been very dry here this summer, but it has rained all day to-day. I have gathered a lot of motherwort seed this fall, and would like to know when it should be sowed.

[Sow motherwort seed in the spring in beds or drills, and transplant; or sow broadcast where it is to remain permanently. Any barren or waste places may be profitably utilized by it.—Ed.]

The Common Black Bees.—John Boerstler, Vashon,+o Wash. Ter., on Sept. 16, 1887, writes:

I send you a sample of some bees that I have. They are the best honey-gatherers that I have ever seen. They are larger than the black bees. Please give their name in the AMERICAN BEE JOURNAL.

[These are only the common black bees, so far as I can see.—A. J. Cook.]

Misfortunes Multiplied.—Rev. A. McKnight, Texarkana, ♀ Ark., on Sept. 24, 1887, writes:

I have had a sad loss by fire; have lost all of my buildings (seven in all), with the greater part of surplus stuff; and just on the heels of that, I lost all of my hogs by pneumonia, or something else, and then we had the dreadful drouth, so that we are likely to lose most of our bees. On Aug. 10 I had 76 good, average colonies, but they are going rapidly, and I am put to my wits' ends in getting buildings ready for winter, so that I cannot afford to bother with the bees. There are certain districts in this part of the South that bees did reasonably well, but the loss is destined to be very heavy. I had no insurance on my property. I had been building and refitting, and wanted to get all complete before I had it insured. I send special regards to the BEE JOURNAL and its able and efficient editor.

[Was it not too risky, not to insure in time?—Ed.]

Convention Notices.

☞ The Pan-Handle Bee-Keepers' Association will hold its next meeting in the K. of P. Hall, No. 1138 Main St., Wheeling, W. Va., on Oct. 26 and 27, 1887. All bee-keepers are cordially invited.

W. L. KINSEY, *Sec.*

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.

J. T. CONNLEY, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books**, bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2 00.

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The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 18@19c.; 2-lbs., 18c.; dark 1-lbs. 15@18c., and 2-lbs. 16c. Receipts are light and prices tending higher.
Sept. 23. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections brings 18@20c., according to its appearance. Very little call for dark or buckwheat comb honey. Extracted, 7@10c.
BEESWAX.—22@23c. R. A. BURNETT,
Oct. 1. 161 South Water St.

DETROIT.

HONEY.—Best white comb brings 16@18c.
BEESWAX.—23c.
Sept. 20. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sold to-day at 17c.; 2-lbs., 14@15c.; dark, 10@12c. White extracted, 8c.
BEESWAX.—25c.
Aug. 25. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c.
BEESWAX.—25 cts. per lb.
Sept. 16. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7c.; light amber, 6@6½c., and dark, 5@5½c. White comb, 15@17c.; amber, 13@ 5c. Arrivals small and market very firm, holders being indifferent.
BEESWAX.—20@22c. Demand better.
Sept. 26. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 12@13c.; extra white comb, 14 to 15c.; dark, 7 to 10c. White extracted, 5¼@5¾c.; light amber, 4¾@5c.; amber and candied, 4¼@4¾c. Receipts light; poor crop.
BEESWAX.—21@23c.
July 25. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-lbs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug 26. A. Y. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: White 1-lbs., 16@18c.; dark, 15@16c.; white 2-lbs., 15@17c.; dark, 14@15c.; California—white 1-lbs., 15@17c., 2-lbs., 15@16c.; dark 1-lbs. 14@15c., 2-lbs. 14c. Calif. white extracted, 7@7½c.; dark, 6@6½c. No white clover in market.
BEESWAX.—No. 1, 20@22c.; No. 2, 16@18c.
Aug. 24. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 13@14c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 6½ to 7c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Sept. 22. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds, glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.; 2-lbs glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@6c. Demand very good.
Sep. 21. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 16@18c. Demand for extracted in jars and bottles is opening early and well. This market to a great extent is governed by New York prices.
BEESWAX.—24@25c.
Sept. 20. ARTHUR TODD, 2122 N. Front St.

* * *

Don't do it!—Notwithstanding our many cautions, some persons still persist in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

* * *

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

* * *

We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

* * *

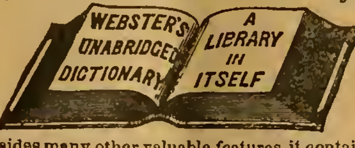
We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

* * *

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

THE BEST
INVESTMENT
for the Family, the School, or the Professional or Public Library, is a copy of the latest issue of Webster's Unabridged.



Besides many other valuable features, it contains
A Dictionary
of 118,000 Words, 3000 Engravings,
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locating and describing 25,000 Places,
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ARE you going to exhibit, and develop the home market? You will find our brilliant CHROMO CARD a power to extend reputation. This beautiful Card is printed in 8 colors, full of instruction and amusement.

Give the same enterprise to SELLING HONEY, that your merchant does to selling calico, and the Home Market will take it all.

I also have for sale a superior strain of
ITALIAN QUEENS
described in my Circular.
Address, J. H. MARTIN,
4C1y HARTFORD, N. Y.

Friends, if you are in any way interested in
BEES OR HONEY
We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly*, to
A. I. ROOT, Medina, Ohio.

HEAD-QUARTERS IN THE SOUTH
FACTORY OF
BEE HIVES, &C.
Early Nuclei & Italian Queens.
☞ Ninth annual Catalogue now ready.
5Ctf **PAUL L. VIALLON,** Bayou Goula, La.

Established 1857.
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Satisfaction Guaranteed.
DESIGNERS AND
ENGRAVERS ON WOOD
CORNER OF
CLARK & MONROE STS.
FOOT BLOCK.
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DEALERS IN
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COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,
S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
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BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

JUST PUBLISHED,
"PRACTICAL TURKEY RAISING"
By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL Publisher, 69 Dearborn St., Chicago, Ill.
19Ctf

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections: also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is **NAILED AND PAINTED**, and ready for immediate use. Price, $4.00, complete.

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Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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P.S.—Send 10c. for Practical Hints to Bee-Keepers

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,

DR. C. C. MILLER,
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HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

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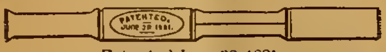

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WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
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Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

W. Z. HUTCHINSON,

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HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

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Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb.

☞ The above is a **special offer**, and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
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F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

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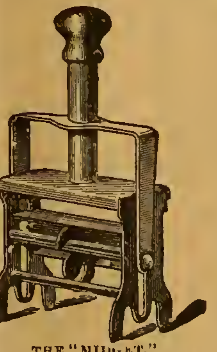
2,000

Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,



THE "MIDGET."

GEO. T. HAMMOND,
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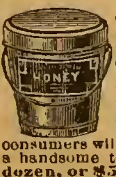
NEW ONE-POUND HONEY PAIL.

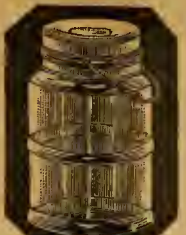


THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	**$1.60**
" 2 pounds " "	.....	**2.00**
" 3 " " "	.....	**2.50**

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Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

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TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ₩ lb.; retail 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—**ARTHUR TODD**, 2122 North Front St., Philadelphia, Pa.
31A13t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

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Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

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Another Bee-Book—and this time it has a royal author. *L'Apicoltore*, the Italian bee-periodical at Milan, Italy, edited by Visconte Alfonso de Salicito, announces the fact that George I., King of Greece, "with a view to remind his subjects of the prosperous condition of bee-keeping in former times," is now writing a volume concerning the "Bees of Mount Hymettus," famed in ancient literature. It is expected to be published very soon. It will no doubt be very interesting, for the young King is talented as an author and historian.

◆

Seasons of Failure, in every line of business, are quite often succeeded by years of prosperity and success. Bee-keeping is *no* exception to this general rule. On the other hand, successful seasons are quite often succeeded by years of failure. In trade, commerce, crops, and, in fact, everything—history repeats itself. An exchange wisely remarks: "A good sea captain is always prepared for rough seas and storms, and trims his sails accordingly." So should the good apiarist likewise exercise prudence, and be prepared for short crops, failures, and even "blasted hopes"—for emergencies come, and times and conditions change, when least expected to do so.

◆

Chilled Bees.—Mr. G. M. Doolittle has been experimenting with chilled bees, and gives the following in *Gleanings* as the result:

> Out of some five different experiments to see how long I could keep half a tea-cupful of bees alive after being chilled, four and one-half days was the latest point at which any could be brought to life again by warmth with moisture, and three and three-fourths days by dry heat. Moist warm air seems to be more effective in restoring such bees than dry or stove heat. These bees were shaken on the snow, with a temperature a little above the freezing point; and as soon as they ceased to move I picked them up and carried them to the cellar of the same temperature in which bees winter well. From the cellar, a few were taken every half day, and warmed, with the above result. All of them had empty stomachs, and I still have a desire to try bees gorged with honey, to see if that makes any difference. In two instances, after picking up half a tea-cupful of bees, and leaving them in a cup or pile, they came to life again; while if scattered about, none did.

The Raisin Crop, this year, in California, is very large, says the *Horticulturist.* So it seems that the bees not only have *not* damaged the crop, but have in reality made it larger by having fructified the flowers. The *Horticulturist* says:

> The raisin crop of California is very large this year, and the estimate of 1,000,000 boxes made some time since, will probably fall far below the entire output.

Hurrah for the busy little bees! They are the fruit growers' very best friends! They increase their crops, and enlarge their bank-account balances.

This is how the bees have rewarded the makers of the "late war" forced upon them by some ignorant and selfish raisin-growers.

This reminds us of a fact which we noted in the AMERICAN BEE JOURNAL some time ago. In a certain town in New England, so strong was the belief that bees injured the fruit, that an ordinance was passed obliging the bee-keepers to remove their bees to another locality. After a year or two, the fruit-growers decided to have the bees brought back, because so little fruit matured upon the trees.

Had the raisin-growers been successful in California, and had driven the bees away, it would only have been a short time before they would have been just as anxious for their return as they then were to drive them out of their borders! It was the work of ignorance and prejudice to demand the removal of the bees, but as soon as light and knowledge is allowed a place, better judgment prevails.

◆

Looking at the Bright Side.—When looking at the past season of failures in the mirror of success, Mr. J. A. Green, of Dayton, Ills., in *Gleanings*, shows how it may be beneficial, in a financial way, to the lucrative apiarist. In addition to the high price of honey, this season, he sees many reasons for the specialist to be encouraged. He says:

> Many bees will probably starve the coming winter, which, I think, will be a good thing for bee-keeping as a whole. In fact, I know of only one thing that would do more to put bee-keeping on a sound and remunerative basis than a wholesale reduction of the number of bees kept, and that is a corresponding reduction of the number of careless and incompetent bee-keepers. I know this idea is not popular with some, but it is my honest opinion.
>
> Although many of those who meet with losses will become discouraged and give up the business, there will be enough who will go at it again to make the trade in bees and queens good.
>
> Look at it which way we will, I think there is much of encouragement to the careful and energetic apiarist. The present loss may be hard to bear; but when all things are considered, it may give greater results than a more apparent success.
>
> So failure wins; the consequence
> Of loss becomes its recompense.
>
> At any rate, good management will go far to retrieve our losses and prevent them from becoming defeats. Stick to the bees, then, and give them the best of care.

◆

Dishonesty, deception and duplicity are business mistakes.

◆

Supply Dealers who have a reputation for integrity and honest business habits, have in that alone a good stock in trade. An untarnished reputation is of more real value than a large capital. The latter soon goes if the former is lacking.

Experiments with Bees, which have a tendency to increase the general fund of information for the devotees of this fascinating pursuit, are always praiseworthy. In the *Apiculturist* for October, we notice the following which will be read with interest by every apiarist:

> For a long time we have been thinking to test the matter regarding the length of time a bee would live after its sting was extracted. If the fact has been stated in any book or other publication, it has never come to our notice, so we concluded to test the matter ourselves. Accordingly, the sting was removed from seven bees with no apparent injury at the time. All the bees were bright and lively from noon till we had retired at night. The next morning two of the number were dead, but the five remaining alive were active and seemed all right. On the second morning all had died but one bee; and although that one seemed as smart as ever, it soon died.
>
> These little experiments, although of no account, add to the general fund of information and facts, concerning the honey-bee. We intend to try some further experiments in this same direction. One is to remove the sting from a number of bees, and then give them a strange queen. Should think it would be kind of funny to witness some stingless bees trying to sting a queen-bee.
>
> When the bees find they cannot sting a queen they will try to bite her. We have often been stung, and have often noticed that when the bee found it could punish its victims no more by stinging, then it would try to bite.

Of course the length of time intervening between the loss of the sting and death is determined by the amount of internal injury inflicted upon the bee in extricating the sting. While two were dead the next morning, one lived until the third day. The latter was apparently injured less than the others in the act of tearing out the sting.

◆

Honey Comestibles.—The annual show of bees, hives, honey and comestibles of the North of Scotland Apiarian Society was held at Shiprow, Aberdeen, on Aug. 30 and 31, 1887. A correspondent has this to say concerning it:

> The show was a most interesting one, and bids fair to outstrip some others, so far as it aims directly to better the bee-keeper by encouraging the manufacture of comestibles and liqueurs from honey of a quality and flavor that sugar could not produce, as well as promoting the whole art of bee husbandry, also in establishing some direct means whereby honey may be disposed of by the members of the society.
>
> There were 23 classes, with about 150 entries. Most of the exhibits were of a superior order, particularly those in the comestible and liqueur classes. Of all the comestibles I have witnessed at other shows none approached to those at Aberdeen. The crystallized fruits, confections, cakes, puddings, creams, jellies, biscuits, scones, liqueurs, etc., were excellent in flavor and appearance—suitable, in fact, for the table of the Queen, and we were proud to hear that a first prize Stewarton super purchased at this show was to be placed on the Royal table. If the competitors in the classes for comestibles—particularly the winners—would publish the recipes for the various articles exhibited, they would be benefactors to all.

◆

Reports of the past season's operations will be very good reading, now that the season for honey-production is over. Will our readers please state how many colonies they had in the spring; how many now; how much honey produced, of both comb and extracted, stating the amount of each. Also please say whether the bees winter in a cellar or on the summer stands.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Recognizing Robber Bees.

Query 480.—How do you recognize robber bees when visiting your hives?—C. L.

Catch and kill a supposed robber in its leaving the hive. If loaded with honey, it is a robber, for honey should be going into the hive, not out of it.—G. M. DOOLITTLE.

This comes by long experience with bees. You will recognize them by the peculiar manner of flight in attempting to gain an entrance, and by the peculiar high note made while on the wing.—H. D. CUTTING.

They dodge this way and that, and hesitate about entering the hive, unless robbing is well under way, when there will be a crowd of empty bees pushing into the hive, and another crowd of loaded ones tumbling out.—W. Z. HUTCHINSON.

The bees have a restive sort of "sneak thief" style. There is always commotion when robbing is going on—bees fighting at the entrance.—A. J. COOK.

By their peculiar actions, for one thing; usually when robbing is started, the bees kick up such a rumpus that there is no difficulty in recognizing them all over the apiary.—J. E. POND.

By their dodging movements, and legs hanging down; and such as have been daubed in honey, wear a dark, shiny appearance. Their hum is different.—JAMES HEDDON.

By their actions. They fly around the hive cautiously with their heads toward it, as though hunting for a hole to get in; and in case the robber alights upon the entrance-board, the guards will seize it and hurl it away, until they are overpowered by the increasing numbers of the thieves.—J. P. H. BROWN.

By their unsteady, quick motions, and their timidty when in small numbers. Langstroth says: "There is an air of roguery about a thieving bee, which, to the expert, is as characteristic as are the motions of a pickpocket to the skillful policeman. Its sneaking look, and nervous, guilty agitation once seen can never be mistaken."—DADANT & SON.

The beginner often mistakes the flight of the young bees, on a pleasant afternoon for robbers. The latter seldom fly before the hives in great numbers. They may be known by the habit of flying with the rear legs hanging straight down ready to alight at an unguarded point, going from side to side of the entrance, making frequent attempts to enter. When robbing is fairly begun, they go straight into the hive and come out heavily loaded, and mostly run up the front of the hive before taking wing. They are then easily recognized.—G. L. TINKER.

When a robber bee approaches near the entrance of a hive, it may be seen to hesitate and poise itself in the air while its hinder legs hang down their full length. It also gives out a sound on a higher "key-note" than when following its honest employment. There is nothing peculiar about a "robber bee." Any bee will turn "robber" in times of scarcity, if it once gets the taste of "boodle."—G. W. DEMAREE.

By their actions. A bee that alights at the entrance, and darts quickly away when approached by another bee, may be set down as a robber. An old offender becomes shiny and black. In a bad case of robbing it is difficult to distinguish the robbers by their actions, but they go in empty and come out full. Kill a few and see if they are full or empty on coming out.—C. C. MILLER.

When robbing is inaugurated, fighting will exist at the entrance. Robber bees hesitate and dodge timidly around. They come empty, and go away from the hive loaded. Their "hum" is on a high key.—THE EDITOR.

Moving Bees before Wintering.

Query 481.—1. Will it do to move bees one mile and put them into the cellar without a flight? 2. If bees were allowed to take a flight after being moved a mile, before putting them into the cellar, would many of them return to the apiary they were moved from? They would not be moved till after November.—W. J., Iowa.

1. Yes, but I should prefer them to have a flight. 2. No, not any.—A. J. COOK.

1. Not very well. 2. After November I think very few would go back.—C. C. MILLER.

1. I would allow them to take a flight. 2. Very few will return.—J. P. H. BROWN.

1. Not in our opinion, though it may not do any harm. 2. We think not.—DADANT & SON.

1. Yes. 2. Some might, but I think not many so late in the season.—G. M. DOOLITTLE.

I would have no fears of bees returning to their old stands if moved a mile. At one time I moved 16 colonies about ⅞ of a mile, and not a bee returned.—G. W. DEMAREE.

I do not think that very many bees would return, and I believe that I should give them the flight.—W. Z. HUTCHINSON.

1. It would be better for the bees to have a flight directly before taking them into the cellar. 2. No bees would return to the stands a mile away in November, and but very few would return in the summer time, on being moved. I have had many nuclei and full colonies at mating stations from one to three miles away, frequently moving them back and forth, but have had little loss from the bees going back to the places of removal.—G. L. TINKER.

I should prefer to let them fly late in the afternoon, after they had been moved. At that time you will have no bees return to the old location, especially if you place some obstruction before the hive-entrance.—H. D. CUTTING.

1. No, they should be allowed a flight before being put away for the winter, unless you wait until severe cold weather. If moved a mile in cold weather, very few would return to the old spot, especially if a board or obstruction of some kind is placed before the entrance prior to releasing the bees. Move them carefully in any case, so that as little shaking up as possible is given them.—J. E. POND.

Yes. No harm will result from such removal without flight, if all other conditions are right. On the other hand, if the seeds of diarrhea are in the hive, this removal will greatly aggravate it. 2. Such a flight might, or might not, result in losing many bees by returning to their old stands. Much depends upon the weather.—JAMES HEDDON.

1. They should have a chance to fly, if possible. 2. No; it is too late in Iowa for that, in November.—THE EDITOR.

How to Discover a Queenless Colony.

Query 482.—How do you know when a colony is queenless? The hive is full of workers busy carrying in pollen, but have a great many drones; hence the fear that they have no queen. —Iowa.

Give the bees some eggs and unsealed larvæ, and if queenless, they will start queen-cells.—W. Z. HUTCHINSON.

If queenless, a colony will start queen-cells when brood in the larval form is given them.—G. M. DOOLITTLE.

Look and see whether there are brood and eggs. Your hive probably has its queen. An excess of drones is sometimes a sign of wealth.—DADANT & SON.

That is no indication; they are without a queen. Look for worker-brood and eggs, if you do not see the queen. Some queens are hard to find. —H. D. CUTTING.

The presence of a great many drones during the breeding season is no evidence of queenlessness. It is evidence of a careless bee-keeper. It shows that there is too much drone-comb in the brood-nest. When bees are hopelessly queenless, that is, when they have no queen and no eggs or larvæ to rear a successor, they soon hang out the sign to a practiced eye. They collect about the entrance of the hive and look dull and hopeless, while other colonies are going smartly about their business.—G. W. DEMAREE.

In the fall it is difficult to tell without seeing the queen. Give them a frame of worker-brood, and if they start queen-cells, it is pretty certain they are queenless.—C. C. MILLER.

If they carry in plenty of *full loads* of pollen, I think they have a queen, drones or no drones. Why, open the hive and look in. With my new hive, I can tell in 10 seconds, without removing a frame.—JAMES HEDDON.

The presence of drones does not argue surely that there is no queen. The carrying in rapidly of pollen makes it quite probable that there is a queen. Why not look for eggs and brood? They will make all sure.—A. J. COOK.

A queenless colony is usually without many drones, often none. If it has very many, they are generally undersized. The colony is first noticed not to be working much, and the bees carry in little pollen. If I want to be sure that there is a laying queen, I take out a center brood-comb and look for eggs and small larvæ.—G. L. TINKER.

When the hive of a queenless colony is opened, the bees show signs of distress. They collect in many small clusters. There is neither eggs nor brood (unless they have a laying worker). The absence of brood when your other colonies have it, and are carrying pollen, is a pretty certain sign of queenlessness. Give a frame of brood; if they start queen-cells, you may know they have no queen.—J. P. H. BROWN.

The only sure way to know whether a colony is queenless or not, is to make an examination; if neither queen nor eggs are found, you may be certain she is not present, although the presence of eggs is not always sure proof. If any doubts remain, put in a frame of comb containing eggs, and see whether queen-cells are built or not. If you find eggs but no queen, it may be owing to laying workers; in such a case no queen-cells will be built, but the irregularity of the depositing of the eggs is a sure test of their presence or not.—J. E. POND.

Your colony may have a queen. Drones are often tolerated when stores are abundant. If, upon examination, you can find no queen, give the bees a frame of worker brood; and if they start queen-cells, you may safely conclude that they have no queen.—THE EDITOR.

Convention Notices.

☞ The Pan-Handle Bee-Keepers' Association will hold its next meeting in the K. of P. Hall, No. 1138 Main St., Wheeling, W. Va., on Oct. 26 and 27, 1887. All bee-keepers are cordially invited.
W. L. KINSEY, *Sec.*

☞ The Kentucky State Bee-Keepers' Society meets in Falmouth, Pendleton Co., Ky., on Oct. 18, 1887. This is expected to be a very interesting meeting, and a large attendance is expected.
J. T. CONNLEY, *Sec.*

☞ The Wabash County Bee-Keepers' Association will meet in the Court House at Wabash, Ind., on Oct. 26, 1887. A large and interesting program has been arranged, and all bee-keepers are cordially invited.
F. S. COMSTOCK, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ⌐O northwest; O⌐ southeast; and ♀ southwest of the center of the State mentioned.

Fessler's Bees—A Poem.

JAMES WHITCOMB RILEY.

"Talking 'bout yer bees," says Ike,
Speakin' slow and serious-like,
"D' ever tell you 'bout old 'Bee'—
Old 'Bee' Fessler?" Ike, says he:—
"Might call him a bee-expert,
When it come to handlin' bees—
Roll the sleeves up of his shirt
And wade in amongst the trees
Where a swarm 'ud settle, and—
Blamedest man on top o' dirt!—
Rake 'em with his naked hand
Right back in the hive agin—
Jes' as easy as you please!
Nary bee 'at split the breeze
Ever jabbed a stinger in
Old 'Bee' Fessler—jes' in fun,
Er in airnest—nary one!—
Couldn't agg one on to nuther,
Ary one way er the other!

"Old 'Bee' Fessler," Ike, says he,
"Made a spesbyality
Jes' o' bees, and built a shed;
Len'th about a half a mild!
Had about a thousan' head
O' hives, I reckon—tame and wild!
Durndest buzzin' ever wuz!—
Wuss'n telegraph poles does
When they're sockin' home the news
Tight as they kin let 'er loose!—
Visitors ran out and come
Clean from town to hear 'em hum,
And stop at the kivered bridge;
But wuz some 'ud cross the ridge
Allus, and go clos'ter—so's
They could *see* 'em hum, I s'pose!
'Peared like strangers down that track
Allus met folks comin' back
Lookin' extra fat and hearty
Fer a city picnic party!

"'Fore he went to Floridy,
Old 'Bee' Fessler," Ike, says he,—
"Old 'Bee' Fessler couldn't 'bide
Children on his place," says Ike.
"Yit for all they'd climb inside
And tromp round there, keerless like,
In their bare feet. 'Bee' could tell
Ev'ry town boy by his yell—
So's 'at when they bounced the fence
Didn't make no difference!—
He'd jes' git down on one knee
In the grass and pat the bee;
And, ef 't adn't staid stuck in,
Fess 'ud set the sting agin—
'N potter off, and wait around
Fer the old familiar sound.
Allus boys there, more or less,
Skootin' round the premises!
When the buckwheat was in bloom,
Lawzy! how them bees 'ud boom
Round the boys 'at crossed that way
Fer the crick on Saturday!
Never seemed to me su'prisin'
'At the sting of bees 'us pizin'.

"'Fore he went to Floridy,"
Ike says, "nothin' 'bout a bee
'At old Fessler didn't know,—
W'y, it jes' 'peared like 'at he
Knowed their language, high and low!
Claimed he told jes' by their buzz
What their wants and wishes wuz!
Peek in them-air little holes
Round the porches of the hive—
Drat their pesky little souls!—
Could a skinned the man alive!
Bore right in there with his thumb,
And squat down and scrape the gum
Outen ev'ry hole, and blow
'N bresh the crumbs off, don't you know?
Take the roof off, and slide back
Them-air glass concerns they pack
Full o' honey, and jes' lean
'N grabble 'mongst 'em for the queen!
Fetch her out and show you to her—
Jes', you might say, interview her!

"Year er two," says Ike, says he,
"'Fore he went to Floridy.
Fessler struck the theory
Honey was the same as love,—
You could make it day and night.—
Said them bees o' his could be
Got jes' twic't the work out of
Ef a feller managed right.
He contended ef bees found
Blossoms all the year around,
He could git 'em down at once
To work all the winter months
Same as summer. So one fall
When their summer's work was done,
'Bee' turns in and robs 'em all—
Loads the hives then, one by one,
On the cyars, and 'lowed he'd see
Ef bees loafed in Floridy!
Said he bet he'd know the reason
Ef his didn't work that season!

"And," says Ike, "it's jes," says he,
"Like old Fessler says to me,—
'Any man kin fool a bee,
Git him down in Floridy!'
'Peared at fust, as old 'Bee' said,
Fer to kind o' turn their head
For a spell—but bless you! they
Didn't lose a half a day
Altogether!—Jes' lit in
Them-air tropics, and them-air
Cacktusses a-ripen-nin,
'N magnoliers, and sweet peas,
'N 'simmon and pineapple trees,
'N ripe bananners, here and there,
'N dates a-danglin' in the breeze,
'N figs and reezins ev'rywhere—
All waitin' jes' fer Fessler's bees!
'N Fessler's bees, with gaumy wings,
A-gittin' down and whoopin' things!
Fessler kind o' overseein'
'Em, and sort o' "hee-o-heein'!"

"Fess, of course, he took his ease,
But 'twuz billous on the bees!—
Sweat, you know, 'ud just stand out
On their forreds—pant and groan
And grunt round and limp about!—
And old 'Bee,' o' course, a-knowin',
'Twuzn't no fair shak to play
On them pore dumb insecks, ner
To abuse 'em that-away.—
Bees has rights, I'm here to say,
And that's all they ast him fer!
Cleared big money! Well, I guess
'Bee' shipped honey, more or less,
Into ev'ry State, perhaps,
Ever put down on the maps!

"But by the time he fetched 'em back
In the spring agin," says Ike,
They was actin' s'picious like,
Though they 'peared to 'lost the track
' every thing they saw or heard.
They'd lay round the porch and gap,
At their shadders in the sun,
Do-less like untell some bird
Suddently 'ud may be drap
In a bloomin' churry-tree,
Twitterin' a tune 'at run
In their minds familliously:
They'd revive up, kind o', then,
Like they argied—'Well, it's ben
The most longest summer we
Ever saw or want to see!—
Must be right, though, er old 'Bee'
'Ud notify us!' they-says-ee,
And they'd sort o' square their chin
And git down to work agin—
Moanin' round their honey makin'
Kind o' like their head was achin'.
Tetchin' fer to see how they
Trusted Fessler that away—
Him a-luzin' round, and smerkin'
To hisself to see 'em workin'!

"But old 'Bee,'" says Ike, says he,—
"Now where is he? Where's he gone?—
Where's the head he helt so free!—
Where's his pride and vanity!—
What's his hopes a restin' on?—*Selected.*

For the American Bee Journal.

Apicultural Expressions—Dark Honey.

D. MILLARD.

"Be careful" is an injunction often imposed upon bee-keepers, but generally intended to apply to the practical part of the profession. But I cannot help thinking that we as honey-producers should be more cautious as to how we express ourselves when in the presence of the uninformed, who would be our patrons; and if this be true, still greater care should be exercised in speaking through the press.

It is a mistake to suppose that all who read are well versed in apicultural terms, therefore, a word wrongly used often causes a wrong impression. Even when we use the best known terms, we are often misunderstood, as for instance, as has been stated, the words "extract of," for extracted. But the word extracted is now so well understood when connected with the word honey, that I doubt if any change could be made for the better.

When at our State Fair a few years ago, I noticed some ladies viewing some honey, and heard such expressions as, "Isn't it beautiful, splendid?" etc., and I fancied I could see their mouths watering, when a prominent bee-keeper of this State, in conversation with several others who were speaking about their season's success, remarked thus: "My bees did fairly well the forepart of the season, but later they gathered considerable *bug-juice.* I have about a barrel and a half on hand." The ladies heard the remark, and turned away apparently disgusted. On page 587 a correspondent sends a sample of what he calls honey, but guesses it to be honey dew. He is told that it is "bug-juice," miscalled honey-dew, and is unfit for winter stores for bees, which, no doubt, is true in a measure, for I do not believe that honey is ever found in any way connected with dew. To call it "aphidæ honey" would be equally wrong, as honey is gathered only from flowers. I usually call it "dark honey;" some call it black honey, which I think would sound better to a would-be purchaser, than "bug-juice."

Right here it occurs to me that the extremely dry season just passed (just the kind of weather for the so-called honey-dew), together with the extreme shortness of the crop, and the small amount now on the market, that honey-dew or bug—(well, call it what you please) should manifest itself in greater quantities than present reports would indicate, or forever hide itself along with "artificial comb honey."

GATHERING DARK HONEY.

In the last days of September, 1885, I discovered that my bees were gathering considerable dark, strong honey, and that they were bringing it from the north. I was determined to know, if possible, what it was, and from where it came. About one-half mile north of my apiary is a marsh, which is usually dry the latter part of the season; it is about 50 rods wide, and 2 or 3 miles long.

North of this is about the same width of swamp, and beyond this is hard land covered with timber—beech, maple and basswood. I went over the road across the marsh to the west, and entered the timber north of the swamp, and commenced listening for bees, and looking for bark-lice, climbing up into several small beech and maple trees. I then passed southward and examined through the swamp, but I could find neither bark-lice, honey-dew, or any bees at work.

Passing on I came to the marsh, where I found what I was looking for. East and west of me for nearly a mile the marsh was thickly covered with boneset, and the boneset as thickly covered with bees. On the south side of the marsh was large quantities of goldenrod, but the bees were not working on it. From observations made at that time, and several times since, I have come to the conclusion that bug-juice is a great bug-bear.

There is such a substance, however, as the excrement of the bark-louse, which falls upon the leaves, becomes dried, and is again moistened by the dews, and bees sometimes work on it; but this usually occurs in midsummer, and when there is little or nothing else for them.

There are also several kinds of plants, and boneset is one of them, that grow in wet places; and during the early season they attain a vigorous growth, and later in the season, as the water dries out of the soil, they furnish much dark, strong honey on which bees will winter comparatively well, especially if wintered out-doors, and the weather will admit of an occasional flight.

I indorse Mr. Theilmann's views as expressed on page 584. If those who buy and eat my honey do not find the foundation in it, I certainly am not going to call their attention to it; and I further think, with Mr. Heddon, that the less there is said in the bee-papers about the adulteration of honey, the better.

Mendon, ♀ Mich.

Country Gentleman.

Hints about Marketing Honey.

O. L. HERSHISER.

Less than a score of years ago the science of modern bee-keeping was in its infancy. A few energetic bee-keepers saw in their pursuit the possibility of a great industry, and began vigorously to develop it. Then there was no difficulty in disposing of the honey crop at what would now seem fabulous prices, for the demand exceeded the supply. Rough boxes holding from 10 to 40 pounds of honey, brought from 25 to 30 cents per pound.

The prices have steadily decreased, as the science developed and production increased, until last season the beautiful white one-pound boxes sold as low as 10 cents per pound. It has now become as much a study how best to sell, as how to produce honey. If honey can be readily sold, there is still more money in producing it now than formerly, for thousands of pounds can be produced by the new methods, where hundreds were by the old.

On account of the failure of the small fruit crop in many sections, as well as the shortness of the honey crop, prices for the latter promise to be better than for several years past. In order to secure the best prices, and the quickest sales, great care should be taken in preparing the honey so that it will present the most attractive appearance in the market.

Comb honey should be taken from the hive as soon as capped, as it is much whiter then, than if allowed to remain with the bees until the close of the season. The propolis should be scraped from the sections to give them a nice, white appearance.

The style of package has often as much to do with securing good prices and quick sales as the honey itself. Small packages, holding from 8 to 24 are preferred. Such packages are best suited to a small market or retail trade. The case should be made of white basswood with a strip of glass 2 inches wide running the full length of each side. This gives the case an attractive appearance, and customers can usually judge of the quality of the honey without opening the package. Cases should be manufactured so cheaply that they may be sold with the honey, without expecting to have them returned. An old, soiled case hurts the sale of nice honey more than enough to purchase a new case.

EXTRACTED HONEY.

Extracted honey should be sold in vessels which will be of use to the housewife after the honey has been used. Glass fruit-jars are found to be very good. Jelly-cups also meet with a ready market. A tin-pail holding from 1 to 12 pounds with bail and cover, sometimes sells well, but not as well as glass vessels, as they do not present so attractive an appearance. It is not advisable to use bottles or tin fruit-cans in marketing extracted honey.

The style of packing best suited for marketing extracted honey in jelly-cups is a crate holding 18 cups, arranged in three rows of six cups each. The crates should be constructed of white basswood or pine, with solid ends of half-inch stuff, and two thin strips on each side, and three strips on top and bottom. The bottom strips should be heavy enough to support the weight of the honey, and 2 inches wide. This style of package is quite attractive, and meets with a ready sale.

The best time to market honey is during the fall and winter, after the season of perishable fruits and vegetables is over. There is usually a limited demand at all seasons, but care must be exercised during summer and early autumn, or the market and prices will be injured for the fall and winter.

HONEY CONSUMPTION.

The honey consumption in nearly every community can be greatly increased if one only sets about it in the right way. The bee-keeper should aim to have his honey on sale at every grocery store in his community. Ofttimes grocerymen of small experience will not care to buy the "stuff" at first, especially if none has been sold in the place before. The bee-keeper should leave a case both of comb and extracted honey with these inexperienced grocerymen, and collect the money after the honey has been sold, allowing the salesman a liberal commission.

Leave a spoon and an extra jelly-cup of honey with the groceryman, to allow customers an opportunity to sample it if they choose. Request that your honey be exhibited in a conspicuous place, and if properly prepared for market, it will not fail to attract notice. If proper care and thought be given the preparation and marketing of honey, the demand will in a short time be greatly increased. Usually the groceryman will be willing to pay cash for the second lot.

A good thing, nicely put up, only needs to be known to create a demand for it. so that it pays to go to some trouble, and even a little expense to open a home market, which is always the best, because there are no freight or commission charges to eat up the profits, and no risk of dishonesty to take the whole.

Chautauqua Co., ♀ N. Y.

For the American Bee Journal.

An Hermaphrodite Bee, etc.

ALLEN LATHAM.

Yesterday as I was passing through my apiary, I noticed a young bee with crumpled wings. I picked it up to crush it, knowing that it was of no use, and would linger and die. As I picked it up I noticed that it had a drone's abdomen. Well, says I, it is a drone reared in a worker-cell, and has been thrown out by the bees. But to my surprise, when I turned it around, I saw that it had the head of a worker. This led to a close examination, and I saw that its abdomen and hinder pair of legs were *undoubtedly drone;* whereas the head, thorax, wings, and front and middle pairs of legs were equally *undoubtedly worker.* I will send the phenomenon by mail in a queen-cage.

Stranger still, the forepart of the bee acted like a worker, while the hinder part was clumsy, and when I held it in my hand, the bee exuded the drabish colored matter which young drones so often do when excited or handled.

Now I ask, was there ever a bee of that sort seen before? To me it is a great curiosity. If you consider it worthy, you are welcome to put it in the BEE JOURNAL Museum. You can see for yourself that the bee is just as I say, though perhaps the middle pair of legs may be drone instead of worker. The bee now, as I send it, is dead; if it gets dry, a little steaming will limber it up so that it may be handled.

The goldenrods and asters are coming on finely here. We have had some splendid weather, and bees have worked as they have never worked before. I think that sufficient honey will be gathered to winter them.

Lancaster,⊙ Mass., Sept. 27, 1887.

[The bee mentioned above is a so-called hermaphrodite. A true hermaphrodite, like the common snail and angle-worm, is an animal which is at the same time both male and female. Thus an angle-worm has both ovaries and testes, and so produces both eggs or germ-cells and spermatozoa or sperm-cells. Insects are never true hermaphrodites, but may appear to be both male and female. I have many bees that appear to be one sex, if we examine the head and thorax, and the other sex if the abdomen be examined. Thus the bee sent by Mr. Latham is plainly female, as to head and thorax, and male as to abdomen. I find that all the legs are of the worker type. Mr. L. thought the posterior legs were drone; but they have the characteristics of a worker's legs. When the abdomen is drone in its characteristics, the bee is really male. If the abdomen is of the female type, then the bee is really female. In the the first case testes were present; in the last, ovaries. Last fall I received from a bee-keeper a queen, many of whose bees were of this kind. The queen seemed ailing, as she was not prolific, yet she lived over winter, and a few weeks last spring. Such hermaphrodites are often found among higher animals.—A. J. COOK.]

Canadian Bee Journal.

Bees without Food for 21 Days, etc.

HIBERNATION OR STARVATION?

We have been making some experiments to ascertain if possible how long bees will live on one meal, or, in other words, when their sacs are filled with honey, how long they can live if kept in the right temperature. In experimenting with foul brood and fasting bees, we have had them live for nine days; perhaps they would have lived longer, but just as soon as a few bees fell from the cluster, and their abdomens began to look smaller, we would take them out, feeling assured that the disease was cured, as experience afterwards always proved. In shipping queens we find that sometimes they die within five days; at other times we find that they live from twenty to thirty days, although they would have food to go to whenever they required it.

Since this question came up, about bees being wintered without food away up north near James Bay, these things have been revolving in our mind. We thought we would make some tests, as we have a bee-house which we think is well adapted for this kind of work, as the sub-earth ventilation pipes passes about 40 rods under ground, and the temperature is about the same summer and winter, and the chimneys, which are on the top, cause a draft to pass through it. By opening the draft and allowing a current of air to pass through, and closing the bee-house up tightly, we have kept colonies from 12 to 21 days, hanging there in a cluster. Twenty-one days may seem a long time for bees to exist without any food except what they take with them in the abdomen, yet when the right temperature can be secured, and the bees be induced to cluster at the commencement, we would not be surprised to find that they might be kept very much longer. We may say that the bees which fasted 21 days are now in good condition, and from all appearances they now promise to survive the winter.

If any one had advanced the theory that they believed bees could be kept for 21 days as we have done, we would never have believed such a statement. Now that we have actually done it, may there not be some special conditions secured whereby bees could be wintered on much less stores? We think that this is something that we can all afford to experiment a little in, even though we do lose a few colonies. Who knows but the next great stride in bee-keeping might be to take all the honey from them, and have the repositories specially prepared with all the desired conditions, and winter our bees without stores? There would be one saving at least; they would not and could not have the diarrhea, and if we fed them once or more, we could afford to get the best possible food for them; and even if we required to feed them once or twice during the winter, what a saving this would be!

We do not say that all this is possible, but if we can keep them 21 days when we supposed that we could not keep them more than one-third of that time, why may we not reasonably suppose that we can keep them throughout the winter without food? Then, again, suppose it is necessary to feed them once or twice during the winter—we might select and give them such food as would be best adapted to their requirements, and least liable to give them the diarrhea. Again, they would have more food to go to, and would have to be satisfied with just what they had, and could not continue to gorge themselves until their bodies become so inflated that they could not retain the contents. Suppose some of our scientists turn their attention in this direction, and see what the result may be. If Prof. Cook, McLain and others, having bees in localities where they can put them into caves far down in the earth, or in specially made repositories where any desired temperature can be secured, would look into this matter, no doubt further light on the subject, and something interesting to all of us would be the result. Bees in the fall of the year are not so valuable as in the spring, and we think experiments might be made without costing too much to the experimenters.

Perhaps some will think that this will assist in proving Mr. Clarke's hibernation theory, but facts are stubborn things, and it does not matter to us whose theory it proves or disproves. If we can secure a condition under which bees will exist for a long time without food, it is worth while trying. We do not care whether it is called hibernation, starvation, or any other name; if we can improve on any system it is our duty to do so. Live bee-keepers should never slumber in their business, but make an effort to improve every condition to the best of their ability.

EXAMINE THE COLONIES CAREFULLY.

Have you examined your bees within the last week; weighed them and ascertained beyond any doubt that they have plenty of stores for winter? If you have not, many will die of starvation long before spring. At one of our bee-yards containing a few less than 200 colonies, from which we had taken no honey except a little early clover, when the flow ceased there was enough in many hives to winter 2 colonies, and we then decided that they had sufficient, and could spare enough for 50 colonies more, so we extracted in some of our other yards more closely than we otherwise would, expecting to take from many of these hives sufficient to winter the others on; but judge of our surprise on going over them carefully last week, to find that they had, since the cessation of the honey-flow, consumed so much that some of them actually required feeding!

After equalizing the stores they had, we find they will need from 5 to 15 pounds each before they will be ready for wintering. Of course their having such a plentiful supply on hand after the flow ceased, caused them to breed more rapidly than those that were extracted from and had less stores, so that now they are very strong in bees—some of them, we fear, are too strong, for we find that colonies having too many bees going into winter quarters, commence breeding in the winter, and frequently consume their stores and starve to death before spring. We prefer medium colonies when wintered in a special repository, but for out-door wintering we think there is less danger of loss with those unusually strong.

Not having sealed honey to give those colonies as we expected, we placed on about 100 Canadian feeders; about 15 pounds of granulated sugar syrup was put into each feeder. This was done late in the evening, and by morning the bees had taken it all down except a little in the bottom. They were filled again, and in about 12 hours the bees had taken it all down. Good, strong colonies in warm weather, with plenty of room below to store it, will carry down from these feeders about 30 pounds in one day...

The consumption of stores in the last two months will astonish many of even our best bee-keepers, when they examine their hives. We hope this warning will not be unheeded by any. Have no guess work about it, take scales, set the hive on them, take the gross weight, and then deduct the weight of the hive. We usually weigh several, and take the average weight of the hive, frames with bees, comb and stores. After deducting the weight of the hive, deduct say 5 pounds for bees, comb, pollen, etc., then have no less than 20 pounds in small colonies, and 30 pounds in large ones. We would rather have 5 pounds more than one pound less per colony.

Plenty of stores stimulates bees, and it is a great mistake to simply give them barely what will carry them through the winter....This is a very important matter, and you should not forget to feed the bees any more than you should your horses.

Now, sometimes, we find the weather cold when we feed, and the bees clustered quietly on the combs. If the food is poured into the feeder cold, they are not much inclined to go up and take it, especially if the weather is very cold. Now, all that is necessary, even in frosty weather, to make them take it, is simply to pour it in very warm. We have frequently filled the feeders with hot syrup, which would indicate when the thermometer was placed in it, a temperature of 150°, or perhaps 175°. The heat from this syrup when the feeder was covered, would pass down through the opening, warm the bees, and warm up the whole hive, and they would sup at it carefully until it got cold enough, when it would be taken down and stored in the combs quicker even than cold syrup on a warm day. But hot or warm food fed in very warm weather is liable to cause robbing, and when the weather is sufficiently warm, we would not advise feeding any but cold syrup until late in the evening, when the bees would relish it, and the excitement be all over before morning.

Our plan of feeding enables us to feed a colony without any stores, sufficient for wintering, in one or two days. The excitement of feeding over, the bees seal it at their leisure, and 25 per cent. is gained by this system over a slow method.

For the American Bee Journal.

Nebraska State Fair and Convention.

The bee-keepers of Nebraska, while viewing the finest exhibition ever made of their State's productions at the State Fair in Lincoln, were highly pleased with the grand exhibition of the apiarian products made by Mrs. Heater, Messrs. E. Tower and E. Kretchmer, and others, under the supervision of E. W. Whitcomb. Mrs. Heater's display received special notice in the daily papers, and in the opinion of the writer it was the best display given.

The exhibition of honey, hives, fixtures, etc., prompted many questions on the part of lovers of honey; these were promptly and willingly answered by the exhibitors.

On Wednesday evening, Sept. 14, the Nebraska Bee-Keepers' Association met in the Botanical Lecture room of the State University. The evening was devoted to a discussion of the year's result in apiculture.

The general opinion was that there would be but a small surplus of honey in the State, but that the bees had gathered enough honey from heart's-ease to supply them with natural stores for winter, and was also stimulating late fall breeding. This latter result gave rise to a lively debate regarding the advisability of having the bees hatch after the weather becomes too cool for natural flight.

What should be the relative position of the hive to the sun, in order to insure early working? was well considered. Figures given by the superintendent of bees on the Fair Ground showed that there is much in favor of the sunny side.

The association met again on Thursday evening, and the presence of a larger number of experienced bee-keepers, and of Prof. C. E. Bessey, seemed to enthuse each one, and all went diving into the flowers to see where the nectar is.

Prof. Bessey gave a classification of the honey-yielding flowers of our State, and explained the organism of many of these, and also showed how essential the visits of honey-seeking insects are to the fertilization of blossoms.

After a discussion regarding the merits of many of our wild flowers, it was generally believed by those present that we have a first-class honey-producing State.

Those remaining for the last meeting of the association felt encouraged and well compensated for time spent in the extra session.

H. N. PATTERSON, *Sec.*

Prairie Farmer.

Bees in the Red Clover.

MRS. L. HARRISON.

W. H. W., Pierce County, Wis., asks: "Is it a fact, if there were no bumble-bees we would have no clover seed?"

There are many plants in the economy of nature, dependent upon insects for the fertilization of their seed, and red clover is a striking example. The well-known flower, bleeding-heart (*Dicentra spectabilis*), bears no seed, being a native of North China, and its fertilizing moth has never been introduced into this country.

It is claimed by some that Italian bees work upon red clover, and denied by others. I think that under certain conditions they do, as when the heads are very small by reason of drouth, these bees are able to reach the nectar.

The first crop of red clover, although the most luxuriant, yields very little seed, so little that it does not pay growers to thresh it. The reason for this is that there are so few bumble-bees at this season, as only the queen and a few workers winter over. But by the time the second crop blooms, there are plenty of workers to do the work assigned them. It appears to be their special mission to fertilize this clover, as they do not store sufficient honey to be of any use to mankind.

Waldo F. Brown, a prominent writer on agricultural topics, wrote last year to the *Philadelphia Press*, that he never before harvested such a large crop of clover seed, and before cutting, destroyed more bumble-bee's nests than he ever saw before on the same amount of ground. By so doing, it appears that he willingly killed "the goose that laid the golden egg."

It would be well for agriculturists to ascertain, before destroying insects, whether they are friends or foes to their interests. In Australia no clover seed was produced; and ascertaining the reason, bumble-bees were introduced, when it bore seed in abundance.

Red clover is a very useful plant, and during the severe drouth, when the blue-grass was dry and brown, I noticed the bunches of red clover among it growing luxuriantly. As these insects are absolutely necessary for the production of red clover seed, they should receive better treatment from agriculturists than heretofore, as it is a common practice to send out a man or boy, at certain seasons of the year. to destroy every nest that can be found, for fear they may sting the horses while fall plowing.

This may be necesssary on land that is to be plowed in the fall, but where their nests are located in meadows, they could be shut in as easily as to destroy them, and let out after the crop is secured. The nest could be marked in the meadows, and the grass cut away, and after sundown, when the bees had all entered, the holes could be securely closed, and kept so until the hay was secured, and then opened.

Peoria,⊙ Ills.

For the American Bee Journal.

Water-Tight Hives, etc.

A. C. TYRREL.

I make hives water-tight and durable by giving them two good coats of white paint (three are better), spreading the last coat on thicker than the first, and while the paint is still fresh, sprinkle thickly with sand; what is not absorbed by the paint will rattle off. Sand adds but a trifle to the weight of the hive; the extra labor is not worth speaking about, and then the hive is practically indestructable, and presents a fine appearance—an ornament to any apiary or lawn. Try it.

PREVENTION OF MOTHS.

A good receipt for cooking a hare is to catch it first, they say, and the better way to keep moths from honeycomb is to catch the millers, or do it by proxy.

The most effectual method that I employ, is to allow a flock of Pekin ducks free access to the apiary. They forage during moonlight nights—the only variety, I believe, that prowl about after dark. I have never had a moth in my hives.

VENTILATING BEE-CELLARS.

I am enlarging my bee-cellar, and I wish to know how to ventilate it to the best advantage, and at the same time exclude the frost. The cellar is under the house directly over the dining room, and a pipe from the cellar to the outside of the house would be an unsightly object. 1. How would it do to run a pipe through the floor, connecting it with the stove-pipe in the dining room? 2. Is it absolutely necessary to keep the temperature of a bee-cellar 40° or 45°? Some say 50°.

Last fall I took extra pains to make my cellar tight and warm, and the mercury did not register 45° during the winter, but the bees were very restless all winter, and the number of dead bees in the spring was much greater than the previous year. the thermometer registering about 28° during the winter months.

If the temperature in a cellar on the outside of the hives is say 30°, inside among the bees it must register 80° or higher, if the colony is strong. In the spring of 1885, a swarm of Italians absconded and took up there quarters in a hollow cottonwood tree, where they have wintered ever since, in a bleak, exposed place. The thermometer has not once registered 50° during the winter, and still they live and flourish.

Madison,♂ Nebr.

[1. That is quite often done, and works satisfactorily.

2. Yes; it is best to keep the temperature at from 40° to 45° Fahr.—Ed.]

Gleanings.

Cellar vs. Out-Door Wintering.

W. Z. HUTCHINSON.

It is a pleasure indeed to discuss apicultural problems with such a man as O. O. Poppleton—one who can lay aside prejudices, and calmly and fairly try to find truth I am glad to note with what unanimity most of the bee-papers and their contributors are dropping personalities — discussing principles instead of men.

In regard to caring for bees in the cellar, there may be a grain of truth in what Mr. Poppleton says. If a man wishes to leave his bees uncared for all winter, and go off to the "land of flowers," it may be better to protect them thoroughly upon the summer stands. Most of our bee-keepers, however, stay at home in the winter, and to them this question of supervision is not a weight one. Take my own case, for instance. My bees were kept in a cellar under the sitting-room, hence there was no expense for a fire on account of the bees, or else there was no expense for a fire to keep ourselves warm. I presume the majority of bee-keepers are situated in exactly this manner. And now about the supervision in regard to temperature:

We ripped apart, for a short distance, two breadths of the carpet, bored a hole in the floor, and suspended a thermometer by means of a string attached to a cork that just filled the hole in the floor. A rug was kept over the slit in the carpet. Our little girls kept watch of the temperature. It seemed to afford them considerable pleasure to have each one guess what the "tempuchary" (as the youngest one called it) was, and then look and see who had guessed the nearest. The "tempuchary" varied from 40° to 48°; most of the time it was 45°. When we had extremely cold weather, accompanied by high winds, the mercury would sink to 40°. Upon several occasions I kept a lamp-stove burning all night in the hatchway, and burned, perhaps, between one and two gallons of oil. Had there been a double door to the hatchway, I do not think this burning of lamps would have been necessary. The mercury reached 48° during warm days upon the approach of spring. Nearly all cellars need a drain, and it is just about as easy to make the drain so that it can be used for a sub-earth ventilator as not. My own cellar-drain is so arranged; but I have not allowed the air to pass in through the drain for the last two winters. Do you ask why? Well, I had my doubts as to its benefits; and, besides this, it lowered the temperature. Had the pipe been longer it might not have done so; it is only about seventy feet.

I had 20 colonies buried in a clamp last winter. They were put in about the middle of November. A wooden tube 3 inches square, and about 8 feet long, extended from near the bottom of the clamp up through the covering of earth, and projected 4 or 5 feet above the surface. At the bottom of this tube was kept a thermometer, whence it could easily be drawn by means of a string. When the bees were first put up, the temperature in the clamp was 47°. It gradually sank, and in a week had reached 45°. Here it remained until steady cold weather came on, when it again gradually fell until it reached 42°, where it remained unchanged for nearly four months. When the warm days of April came it gradually rose to 45°, at which point it was when the bees were removed. Now, the bees in this clamp wintered splendidly, and there were no fires and no supervision, and the conditions were the same as though they had been wintering in an out-door cellar.

I am aware that some bee-keepers use a fire to warm their bee-cellars, and, with some cellars, this may be necessary; but with an underground cellar that receives a steady supply of heat from the earth, fires are wholly unnecessary; and all the supervision that is needed does not amount to any thing practically, so far as cost is concerned—at least, not to the man who lives at home in the winter.

Mr. P. speaks of the "wear and tear" of putting bees in the cellar, and taking them out again. I fail to see where there is any "wear and tear." He further says, a cellar will not last always, and must be repaired. This is true of some cellars. A cellar stoned up, and under a building, such a one as Mr. Taylor's or Mr. Heddon's, will require no repairs for a lifetime. Mr. Root speaks of the cost of preparing the cellar for wintering bees; that the windows must be darkened; sub-earth ventilation furnished, etc. Candidly, do you, or does anybody know that all these things are needed? Do we know that a cellar must be dark? and if we do know it, is it expensive to darken the cellar? Where is the man who knows that sub-earth ventilation, or any ventilation for a bee-cellar is needed? Mr. P. says there are two "ifs" in the quotation from Prof. Cook; and then in the next sentence he (Poppleton) says, "Chaff hives are safe in severe winters if" (there it is again) "they are properly constructed and handled;" but the really weak point is this part of the argument is found in this sentence: "Many of us older heads have supposed that we had found the royal road to success, and would reach it, too, for a series of years, when some *climatic or food changes* would occur, and the goal would be still ahead." I wish to call attention to the part I have italicized. The two "ifs" in my quotations from Prof. Cook are surmountable. We *can* have the cellar right; ditto the food; but in out-door wintering those climatic changes are an element of uncertainty, the damages from which can be only partly averted by chaff hives or protection of some kind. In the cellar we can have the conditions the same every winter.

I have yet to lose a colony having cane-sugar for stores, and wintered in a warm cellar, and by the methods that I now employ I can have the winter stores consist of so large a per cent. of sugar, and that, too, in such a position that it will almost surely be used during the winter, and all with so little labor, that the damage of loss from unsuitable food practically amounts to but little. It is so slight that I prefer to take the risk rather than to perform more labor and take no risk. I will admit, that some honey is equal to sugar for wintering purposes; and I sincerely wish that Mr. P. could give us an article upon the subject of getting good honey for wintering our bees, and also tell us why he thinks that colonies worked upon the top-story plan do not winter so well; yes, and point out "the very obvious reasons" why neighbor Doane's bees did not winter so well as mine.

Yes, Mr. P., it is an experienced apiarist who can make it pay to spread the brood, if any one can. It is also true, that the time for doing this work comes before the rush of the honey harvest; and I do not doubt that, combined with spring protection, many apiarists might find it profitable; but I feel satisfied that the same results, or nearly as good results, may be secured with no labor; and certainly no bee-keeper need spread the brood in the spring, simply for lack of something to do. What I mean by accomplishing the same results with no labor is, using hives having a brood-nest of such capacity that a queen of ordinary prolificness can and will keep the combs filled with brood without "horse-whipping" her by spreading the brood. We can often increase our profits by increasing the number of our colonies, rather than by increasing the average products of those colonies we already possess. In other words, "securing the greatest amount of honey with the least expenditure of capital and labor" does not necessarily mean securing large yields per colony.

I will explain why I consider it more profitable to winter bees upon sugar when producing comb honey: The prices of extracted honey, and sugar, are very nearly the same; or, at least, they have been, hence the profit could not be very great, while the price of comb honey is twice as great. I am aware that many believe that twice as much extracted as comb honey can be produced, and perhaps this is true in a majority of cases; but those who are well up in the production of comb honey, and employ the best methods, know that they can secure at least three-fourths as much comb as extracted honey.

Rogersville,6 Mich.

For the American Bee Journal.

Beginning in Bee-Keeping, etc.

ED S. EDEN.

The motto, "What is worth doing, is worth doing well," is applicable to bee-keepers in general. It should be the "guiding-star" of every apiarist, especially with the beginner, as it would save him a great deal of time, trouble and expense. I also find that exactness is everything.

Two years ago I attended an auction sale, and among other things to be sold were 75 or 80 colonies of bees. I thought it would be a good chance to get a few colonies, so I secured 8 in what was called Quinby hives; but if they were Quinby hives, there must be many different sizes, as no two of them were alike. The frames were simply ridiculous, for some were ¾ of an inch wide, some 1½ inches, and others 2 inches wide. Some frames would come within 1 inch of the bottom-board, and others would touch it; some hives had 8 frames, some 7, and others 6. The majority of the frames were made out of lath, and not trimmed down, at that. One grand (?) feature about these hives was, where they lacked in bees they made up in moths, as they were present by the hundred.

I soon discovered that I had to get the bees out of those hives, or the moths would do it for me. I made up 10 new hives with frames, and then I transferred all of the best combs into new frames, shook the bees into the new hives, and then broke up the old frames and burned them. I rendered all the odd bits of comb into wax, and made over the old hives into the Langstroth size.

Others who got bees at that sale, fared just as badly as I did. The majority have given up bee-keeping, but a few still hang on, hoping that some great boom will lift them "high and dry." But the only effective one will be to "boom" the bees out of those old hives. I would advise those who intend to begin bee-keeping, to visit the nearest good apiarist, and get 1 or 2 colonies, for starting right is the main point. Avoid old-fogy bee-men!

Five years ago I visited an old-fogy bee-keeper that had 2 colonies. He kept them in the house-garret, and in winter the bees went out through a knot-hole in the gable. He observed that more went out than came in, so he put them in the kitchen. Then with fanning-mill screens he made a cage to capture stragglers. When any person called on him, he would show the bees. If they were not out in the cage he would give the hive a few knocks with a hammer, and then laugh at the infuriated bees. All of them died, as might be expected.

Last spring I had 15 colonies to take out of winter quarters, which I have increased to 42, and obtained 250 lbs. of honey, it being too dry for anything to prosper. I have been feeding my bees for the last two weeks.

Eastwood, Ont., Oct. 1, 1887.

London Journal of Horticulture.

The Variations in Honey.

LANARKSHIRE BEE-KEEPER.

I have been endeavoring to discover the cause of the variations of honey gathered from flowers of the same nature, but I am puzzled. Bees appear particular in keeping separate the different kinds of honey they gather and store in their hive. When taking the honey from my hives last autumn, I observed not less than six distinct kinds in one hive—viz., a little from the sycamore, charlock, lime, clover, bean, thyme, and heather, with patches of other kinds.

From this hive I selected combs containing the four last-named, retaining the thyme as excellent in the comb; the other three I dripped, the heather in its liquid state being of a beautiful pale amber color, with a fine body and aroma, with a slight bitterish but agreeable taste.

The clover was, as usual, of a pale color, and, in consequence of the fine season, of a good body with its usual fine, piquant flavor, which makes it the universal favorite amongst the ladies as well as gentlemen with unimpaired tastes.

The bean honey either in its liquid or granulated form is no favorite of mine; it is too sweet, flat, and heavy, while the color is dark and uninviting.

All these three samples are candied, the clover honey having small but well-defined granules. The other two samples have granules so very fine that to see the crystals a high magnifying power is required.

In samples of the same honey in the comb, and also standing in the same place, some of it unsealed remains in its liquid state, unless on the outside, where, contrary to the dripped honey, the granules are large and the cells showing a proportion of the crystallizable and non-crystallizable honey, the latter being absent in the dripped honey. I would have set down this phenomenon with the dripped honey being due to the agitation when being dripped, and the entering of air when being separated from the comb. But conflicting evidence comes in, showing honey gathered in the same moor underwent the same manipulation to be candied, but with large granules, and part uncrystallized.

How this difference arises I leave others to explain. My experience is that honey gathered in localities not far distant from each other differs greatly both in flavor and body. I have taken my bees to seven different moors, and every one of these moors yielded different colored and flavored honey, and before me at this moment

I have two samples of heather honey gathered at moors twenty miles apart. Both are candied—the one as fine as butter, the other with large granules; the former of a light saffron, and the latter of a high amber color; yet when liquid they could not be distinguished one from the other, neither in the color nor the flavor.

If the qualities of honey are to be fixed, let it be by chemistry; there is a wide field for research in that way, and much might be learnt by its study, especially with honey, to help people to select the best for the various purposes it is employed, but it will never settle what is the best honey to suit every taste. Chemically speaking, there is a great difference in honeys, although most authors tell us that good honey is composed of equal parts of crystallizable and non-crystallizable portions, these containing three constituents—sugar, mucilage, and an acid; then divide these again into their respective gases, which gives but a poor idea to know what good honey is.

Other modern writers tell us that the quality of the honey depends upon the age of the bees that gathered it—white when bees are young, but depreciating in color and quality as the bees get older. Then the same encyclopædias tell us the countries that produce the best honey—assertions with little to support them, for the best grades of honey, and with flavor to suit all tastes, need not be sought for out of the United Kingdom, and if the bee is properly attended, the Nation might be well supplied without depending upon foreign supplies of honey.

There has been much written about judging honey, and we have been told that good honey always granulates, yet granulated samples have been frequently disqualified. I am aware that the awards at shows will never give satisfaction to all, yet I think there should be consistence in precept and practice. What I consider bee-keepers should aim at is, to carefully select all samples of honey, keeping every kind separate, never mix two kinds, and take care when the extractor is used, to extract none but from sealed combs. Many honeys contain much of what may be termed the cream of honey; this is lighter than the main body, and is of an oily nature, disappearing if the honey is much heated, and is lost if mixed with the watery, unsealed honey that is often thrown out by the extractor either by what is termed the "ripening process," or by fermentation consequent on the mixture.

Scotland.

[There is a misconception in the minds of many, concerning the bees visiting only one kind of bloom in one journey. We admit that very rarely do bees visit two different kinds of bloom before returning to the hive; but there are instances on record of their doing so, and on such occasions the bees do actually mix the different kinds of honey.—Ed.]

Local Convention Directory.

1887. *Time and place of Meeting.*

Oct. 18.—Kentucky State, at Falmouth, Ky.
J. T. Connley, Sec., Napoleon, Ky.

Oct. 26.—Wabash County, at Wabash, Ind.
F. S. Comstock, Sec., North Manchester, Ind.

Oct. 26, 27.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Oct. 28.—Darke County, at Arcanum, O.
J. A. Roe, Sec., Union City Ind.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Value of the Bee-Keepers' Union, etc.—Mrs. L. C. Axtell, Roseville,⊶ Ills., on Sept. 30, 1887, says:

We have had rain every day for five days—a real soaking rain, for which we are very thankful. We have already been assisted to secure $30 by the existence of the Bee-Keepers' Union (indirectly). I feel that we ought to throw in our influence also. I have just had a good laugh over the numerous names suggested for extracted honey. I think we cannot do better than to retain the name "extracted" for honey out of the comb, unless it be "liquid honey." Mr. A. is well pleased with his Japanese buckwheat; it grew larger, and the grain is larger than the other. But a few seeds of the Chapman honey-plant grew, and none of the Alsike clover, last spring.

Small Crop and Increase.—Wm. Pearson, Oswalt,⊙ Iowa, on Oct. 3, 1887, says:

The honey crop of this year is one-fourth of the yield of last year, and the increase is 30 per cent. Swarms hived on the Hutchinson plan—5 frames with starters—gave from 20 to 30 pounds of comb honey, and gathered fall honey enough to winter on; while others that did not swarm gathered half as much.

Successful Italianizing, etc.—N. M. Middlebrook, Patterson,⊶ Texas, on Sept. 23, 1887, writes:

I have now 20 young Italian queens which I reared and superseded black ones with. All are laying and doing well. This was my first Italianizing, and only made a failure of 3 or 4. Our honey crop is about one-half so far. Bees are getting honey now right along, but how long it will last I cannot tell. They are working on the wild morning-glory. This is the first I ever knew them to work on it.

Common Live-Forever and Aster.—Walter B. Downing, Lexington,⊙ Ky., on Sept. 23, 1887, writes:

I send two kinds of flowers which I would like to have named. What value are they as honey plants? The first one with the cluster of flowers and large leaf grows in our yard and garden as a flower. It has been blooming for some time, and when the weather is suitable, the bees crowd on it all day. It grows in large bunches, and comes up from the roots every year.

The other plant is just beginning to bloom; it grows about 4 feet high, and comes up from the roots every year. It grows well on thin "washy" land. We have about 3 acres of "washy" land that was sowed to timothy and grass about 4 or 5 years ago, and this weed is about to take it. The bees are thick on it when it is in full bloom. Last fall we thought we would have to feed for winter stores, but when we examined the hives, there was some honey to spare, and we think that they gathered the most of it from this plant.

We have secured from 800 to 1,000 pounds of nice clover honey, mostly extracted, from 11 colonies, spring count, and increased them to 17 colonies. The honey has nearly all been sold in the home market at 10 to 18 cents per pound.

[No. 1 is the common "live forever," or garden opine, *sedum telephium*. I find that the bees are attracted to it in our College garden not a little. I do not know how much nectar it yields.

No. 2 is one of our best asters. The asters seem to have yielded much honey this year. I hear good reports of them from all parts of the country.—A. J. Cook.]

Bees did Well, etc.—Ben. Betten, Goodell's,⊶ Mich., on Oct. 3, 1887, says:

My bees did well for this poor year, and they have their hives full of honey to winter on. I use one of the new reversible hives, and I like it first-rate. It is so nice to handle, and the reversible crate is all that could be desired. I would use no other. I would like to hear from others who use the reversible hives.

Convention Notices.

☞ The Darke County Union Bee-Keepers' Association will hold their next meeting at Arcanum, O., on Friday, Oct. 28, 1887. J. A. Roe, *Sec.*

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

W. Z. Hutchinson, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we haye on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We nave now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leathcrette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail. add 1 cent each for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 18@19c.; 2-lbs., 18c.; dark 1-lbs. 15@16c., and 2-lbs. 15c. Receipts are light and prices tending higher.
Sept. 23. S. T. FISH & CO., 189 S. Water St,

CHICAGO.

HONEY.—We quote : White comb in 1-lb. sections brings 18@20c., according to its appearance. Very little call for dark or buckwheat comb honey. Extracted, 7@10c.
BEESWAX,—22@23c. R. A. BURNETT.
Oct. 1. 161 South Water St.

DETROIT.

HONEY.—Best white comb brings 16@18c.
BEESWAX.—23c.
Sept. 20. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 18@19 cts.; 2-lbs., 16@17c. White clover extracted, 8c.
BEESWAX.—25c.
Oct. 5. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c.
BEESWAX.—25 cts. per lb.
Sept. 16. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, scarce at 7c.; amber to light amber, 5½@6½c. Comb, amber to white 2-lbs., 13@16c.; 1-lbs. 15@17c. Demand is good, but arrivals and supplies are very small.
BEESWAX.—22@23c. for good quality
Oct. 4. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.
BEESWAX.—19@22c.
Oct. 3. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-bs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.
BEESWAX.—25c.
Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.
BEESWAX.—No. 1, 22c.; No. 2, 18c.
Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 13@14c.; latter price for choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 6½ to 7c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Sept. 22. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 17@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 14@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10@11c.; 2-lbs. glassed, 9@10c. Extracted, white, 7@8c.; dark, 5@6c. Demand very good.
Sep. 21. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 16@18c. Demand for extracted in jars and bottles is opening early and well. This market to a great extent is governed by New York prices.
BEESWAX.—24@25c.
Sept. 20. ARTHUR TODD, 2122 N. Front St.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent ; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We Supply Chapman Honey-Plant seed at the following prices : One-half ounce, 50 cents ; 1 ounce, $1 ; 2 ounces, $1.50 ; 4 ounces, $2 ; ½ pound, $3 ; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

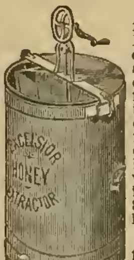
Advertisements.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

Bee-Keepers' Cards. HEAD-QUARTERS !—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.
Address J. H. MARTIN,
4A1y HARTFORD, Washington Co., N.Y.



EXCELSIOR
HONEY EXTRACTORS

In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13 inches	$8 00
For 2 Langstroth "	10x18 "	8 00
For 3 " "	10x18 "	10 00
For 4 " "	10x18 "	14 00
For 2 frames of any size,	13x20 "	12 00
For 3 " "	13x20 "	12 00
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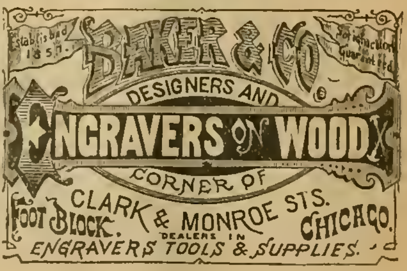

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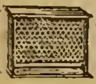

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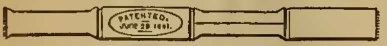

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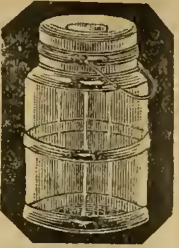

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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Oct. 19, 1887. No. 42.

Whispering Winds kiss the hills of October :
  Thistledown phantoms drift over the lawn ;
Red glows the ivy, like ghost-lighted ember,
  Shrouded in mist breaks the slow coming dawn ;
Sunlighted vistas the woodland discloses,
Sleeping in shadow the still lake reposes,
Gone is the summer, its sweets and its roses—
  Harvest is past and the summer is gone.

Plaintively sighing, the brown leaves are falling.
  Sadly the wood-dove mourns all the day long ;
In the dim starlight the katydids calling.
  Hush into slumber the brook and its song.
Gone are the sowers, and ended their weeping,
Gone are the gleaners, and finished the reaping,
Blossom and bee with the song-bird are sleeping—
  Harvest is ended and summer is gone.—*Sel.*

A Book about Bees, is the title of a new apicultural work, by the Rev. F. G. Jenyns, rector of Knebworth, and member of the Committee of the British Bee-Keepers' Association. It is intended mainly for young people, but no one, of whatever age, can peruse its pages without being greatly profited. It treats of the history, habits and instincts of bees, and teaches the fundamental principles of modern bee-keeping. It consists of 200 pages, and is finely illustrated. The author shows himself to be a thorough master of the subject, and the entertaining and instructive manner in which the book is written, will captivate all who read it. It is just such a book as should be in the hands of the young people of every land, from which may be learned those lessons of industry, economy and thrift which are so essential to the fullest measure of success.

How Beeswax is Made by the bees, is described in the following, found in *Murray's Magazine :*

> It is no mere extraneous substance which needs only to be collected for use : it is a bit of individual organic home manufacture. If you examine the under surface of a cell-building worker, you will find beneath the abdomen four pairs of white plates projecting from as many pockets in the incasing rings of this part of the body. These are the wax plates, made from the life blood of the worker. Examine now with a lens one of the hinder legs. You will find that the stoutest joints are very square shouldered at the hinge, and that the hinge is well over to one side, so that the shoulders form a pair of jaws, which open when the limb is bent, and close when it is straightened. The upper jaw has a row of spines which bite on a plate on the lower jaw. With this apparatus, piercing it with these spines, the worker withdraws a wax plate from its pocket, transfers it to the front legs, and thence to the mouth, where it is laboriously masticated with a salivary secretion. Unless it undergoes this process it lacks the ductility requisite for cell-making.

The S. W. Rich Bee Law-Suit was on trial last week in the Delaware County Court in New York. The New York *Times* gives this account of it :

> What is known as the "bee-suit" between Stephen W. Rich, defendant, and John M. Olmstead, plaintiff, both of Hobart, Delaware County, is now being tried in the Delaware County Court. The suit is of general interest to bee-men everywhere. The facts in the case are these : In the spring of 1886 Mr. Olmstead ordered Mr. Rich to move 40 colonies of bees, Mr. Olmstead asserting that the bees were a nuisance. He said if Mr. Rich did not remove them he would make him do so. Mr. Rich has about 300 colonies of bees, 50 in a place. He is a member of the National Bee-Keepers' Union, which is backing Mr. Rich. The suit is before Judge Boardman, of Ithaca. The Judge says he has never had a like suit before. Men interested in bees and honey from several States are in attendance at the trial.

The legal gentlemen who had charge of the case were F. N. Gilbert and J.B.Gleason, of Stamford, for plaintiff, and A. C. Crosby, of Delhi, for defendant. We understand that the witnesses numbered about 40 persons. The damages were set at $1,200, but the jury, after a brief consultation, awarded him *six cents !* This virtually declared that they were *not* a nuisance.

The principal point made by the defense related to the lack of proof of the identity of the trespassing bees as the property of the defendant, rather than of neighboring bee-keepers. The court ruled that the matter of identity was a question of fact to be passed upon by the jury in connection with the question of damages.

The plaintiff asked for $1,200 damages for injuries inflicted by the bees upon his person and property, but the jury, from which every person having bees was excluded, gave him but *six cents* to cover wounded feelings and damaged property ! !

Another paper says that "the trial, involving questions novel and important to the bee-keeping industry, attracted wide public attention." The result is an overwhelming defeat for the enemies of the pursuit of bee-keeping, and another victory for the National Bee-Keepers' Union.

Uses of Propolis.—A correspondent of the *New England Farmer* writes as follows about propolis :

> The word propolis is pure Greek, from pro for, or in behalf of, and *palis*, a city. It comes to mean a defense, a protection. That is what it is to the bees, a means of defense in winter, and, in fact, at all times. The bees defend themselves with propolis, stopping all openings, making the hive tight, even water-tight with it. During the summer a bottom-board of a hive was pierced in several places by wood-burrowers, but every place was stopped by propolis. Bees will close with propolis a hole an inch in diameter. When cool weather comes, the bees cannot mould this propolis to their needs ; therefore, what is done to keep through the winter should be done before the propolis season closes ; the bee-keeper should know before this time comes, that his bees have stores enough for the winter. To break open the brood-nest in November may be fatal to the bees, and it is better not to do it, or have occasion to do it.

The Editor has been "on jury duty" for the past two weeks, and from Monday morning until Saturday noon was "locked up," and not allowed any communication with the outside world. Correspondents and readers will herein find the reason for any apparent dereliction in duty.

Drones.—A correspondent in the London *Journal of Horticulture* argues that the drones are of more value in a hive than many are disposed to think. He says :

> Drones are generally described as if they were of a uniform character, and all having the same note in their hum. It is not so. There are as differences in drones as in queens, from the noble and stately looking fellow to the dwarf and almost imperfect insect. Now it is a fact, the more handsome-looking the drone is, the more attractive is his hum. Am I right, therefore, in saying that this is a law in Nature, that the queen from the sound may select the most perfect drone with ease, to the future prosperity of the hive? Are drones of use inside a hive or are they not? The following account of what I found in a few hives lately will answer the question.
>
> A hive weighty with honey, having many drones, but a paucity of bees, had brood in five combs in all stages. Two of these combs were almost totally occupied by drones, and their position was changed daily. Not one of these drones will be killed until young bees are hatched.
>
> The second hive I examined had little honey, few bees, and a moderate number of drones. The queen was newly fertilized, and the bees were already slaughtering the drones.
>
> The third had a paucity of bees, drones, and meat. They also were killing the drones.
>
> The fourth hive was not examined internally, because I observed from the motion of the bees the queen was still a virgin, and likely to be flying soon. The drones of this hive were on the wing, and the bees were tugging at them, which, to the experienced would be taken as an onset upon them ; but it is common when the queen is unfertilized, the bees get impatient, and hurry out the drones in the manner indicated.
>
> The interesting part of it was, that as one bee tugged the drone half over the landing board, another flew directly to him and fed him, and then out flew the queen, coming back in less than twenty minutes with signs of fertilization, and the following day was laying. Another queen, however, that was fertilized more than a week since, has not yet laid an egg. The hive is well stacked and stored in everything, and no drones are being killed.

Some five or six years since we stated in these columns that we had reason to think that the drones were of far more value in the hive than they were generally thought to be. The above extract looks the same way. Further investigation may give us more light.

In a Lecture on bee-government by Mr. Wait, of Georgia, at the Vermont State Board of Agriculture, we find the following perhaps rather over-drawn sentiment :

> Though bees are not made in God's image, yet many of their habits—neatness, industry, economy and government—may profitably be imitated by men. It has been supposed that their government is an absolute monarchy, but on the contrary, it is a more perfect monarchy than the world has ever seen among men, and the females have their equal share. Mr. Wait here drew an amusing comparison between their government and our own—not only in a political but in a social sense.

The Motto on the cover page of the November number of *Frank Leslie's Sunday Magazine*—a journal of refined, useful and interesting literature—is well carried out in the November number. "Vesta and the Vestals," by Marc F. Vallette, is very interesting, and the illustrations picture some recent discoveries in Rome. Several good poems and many short articles make up an excellent number of this favorite family magazine.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Thin Honey for Winter Stores.

Query 483.—I extracted all my linden honey, and my bees have not gathered much till now, and they are filling the brood-chamber with honey from goldenrod and other fall flowers; but it is thin on account of so much wet weather, and very little of it is capped over yet. Will this honey be safe winter food, or had I better extract it and feed granulated sugar syrup? If so, how many pounds of sugar before it is liquefied shall I feed a colony, if they have no honey?—W. C., Minn.

I should take the chances of the goldenrod honey.—G. M. DOOLITTLE.

I should prefer sugar to such honey for winter stores; 20 pounds of sugar is usually sufficient.—W. Z. HUTCHINSON.

If bees have good protection in chaff hives or cellars, fall honey is as good as anything for winter food.—G. L. TINKER.

If they fail to cap the honey, I would extract it and feed granulated sugar syrup; no less then 15 to 20 pounds.—J. P. H. BROWN.

I think that your honey will be all right. I should not extract it to replace with sugar syrup, at least in this locality.—H. D. CUTTING.

The bees have plenty of time to evaporate this honey before cold weather. It is the October-gathered honey which is difficult to ripen.—DADANT & SON.

I think I should leave them their fall-gathered stores, and keep them warm in the winter.—C. C. MILLER.

I think that it will be safe; but quite likely you can extract it and feed syrup at a profit. Honey will be honey this year.—A. J. COOK.

Your fall honey is as good as any, if ripened. May be it will work all right any way. I never knew sour honey to produce bee-diarrhea. Feed 15 to 20 pounds of sugar, as you can afford. Wintering in the cellar will require only about one-half as much food as out-doors.—JAMES HEDDON.

It sounds strangely enough to hear you talk about "so much wet weather." Send a little of it this way, please. We have pretty much given up the hope of ever seeing any more rain here. I think your thin honey will be all right by the time winter is fully come. Such honey would be a "God-send" to our bees just now, and they would winter well on it.—G. W. DEMAREE.

1. I have wintered bees successfully on goldenrod honey. It takes longer to ripen it when thin and the weather cool, than when the conditions are just right; but if it is nearly all capped before the final cluster forms, it will be all right, in my judgment. 2. Ordinarily about 20 pounds of pure granulated sugar, dissolved to a syrup about the consistency of good, ripe honey.—J. E. POND.

1. Fall honey, if well ripened, will do for the bees in winter. 2. From 15 to 20 pounds will do.—THE EDITOR.

Ventilating a House-Cellar for Bees.

Query 484.—How can I ventilate my cellar suitable for bees under my house, without laying sub-earth ventilation? It has a drain, some 9 rods long. The cellar is 28x36 feet, by 7 feet high, divided in the centre by a matched-board ceiling; one-half is for bees, and the other half for vegetables. I have wintered bees in it the last five winters very well, losing scarcely any, but I cannot ventilate it as it should be.—W. R., New York.

Connect a pipe with the heating or cooking stove pipe, and the cellar.—G. L. TINKER.

You may possibly get ventilation enough by running a pipe through into a chimney-flue.—J. P. H. BROWN.

It is my opinion that you can ventilate the cellar sufficiently without sub-earth ventilation. A pipe connected with the stove-pipe will ventilate it. If the bees winter well, why ventilate?—W. Z. HUTCHINSON.

Keep the temperature at an even 45°, and you need have no fears regarding the ventilation, according to my experience.—G. M. DOOLITTLE.

Your cellar is all right—let it alone. If you could use a pipe 8 inches in diameter to remove the impure air from the bottom, it would be a help.—H. D. CUTTING.

A hole at the top would give it all the ventilation that I should want. What made you give us the size of your cellar, and then say nothing about the number of colonies you expect to put into it?—JAMES HEDDON.

Sub-earth ventilation is best. I have seen windows on the southeast used to ventilate. I know a very successful bee-keeper who keeps a window open from the bee-cellar all winter; but he fills the space with a screen-box filled with shavings.—A. J. COOK.

I do not think that any special means of ventilation is needed; if the cellar is ventilated to the extent that it is healthful, nothing more is needed. The fact that you have kept bees safely for five winters, is surely proof enough that the cellar is sufficiently ventilated for the purpose. This talk about special ventilation for bees, is largely theoretical, and is not borne out in practice.—J. E. POND.

But why can you not sub-ventilate? The cost is not great, and it is better for anything that is kept in the cellar; and if you have a family of any particular value, their health will be the better for it. If your drain is deep enough, it is a good sub-ventilation. Have a pipe connected with a chimney, or otherwise running up, to draw off the foul air.—C. C. MILLER.

The easiest way is to ventilate the cellar by a pipe running through the floor, connecting with the stove-pipe of the room above. That will draw off the impure air.—THE EDITOR.

Will the Colonies Winter?

Query 485.—Some 30 swarms this season were hived on 6 frames, 10x15 inches, with strips of foundation 2 inches wide, and the surplus cases immediately put on. On examination the brood frames were found from ½ to ¾ filled with drone-brood, and very little worker brood. There was honey in all the frames. Will there be enough bees in these hives to winter?—J. W., New York.

I do not know.—W. Z. HUTCHINSON.

I fear not. You had better unite them.—J. P. H. BROWN.

I presume so, but if they appear weak in bees, perhaps you had better do some uniting.—C. C. MILLER.

No one can say from this information. Our bees do not do so. We have very little drone-brood in such cases.—A. J. COOK.

An examination should tell you, but from what you say I should judge not. You should have known of this state of affairs in July, and remedied it at that time.—G. M. DOOLITTLE.

I should want to see the colonies before giving any answer. Six frames 10x15 inches would be all right if you had plenty of bees.—H. D. CUTTING.

See answer to Query 479. A strain of bees that is inclined to rear many drones, is also disposed to build much drone-comb. Unless the colonies are very small, they will winter.—G. L. TINKER.

Yes. Put them in a good, warm cellar, or other repository. Why do you not get Mr. Hutchinson's book, and learn how to avoid all that drone-comb?—JAMES HEDDON.

I would have no fears for their safety if the colony is of average size; but I do not know where the brood came from, as you describe it. I guess you will want to put in full sheets of foundation next year; that is, if you have any bees left next spring. Six frames 10x15 inches are not enough for an average colony, if it was all worker-comb. Not less than ten such frames will give sufficient brood, and room for stores for an average colony.—G. W. DEMAREE.

From the data given no one can tell, but I hazard the guess that there will be too few bees to winter safely. There should be at least two quarts of workers now, to go through the winter, and be of value in the spring. I should advise a change of queens.—J. E. POND.

The condition is too indefinitely stated. A change of queens is evidently essential. In a good cellar these colonies might "pull through" the winter.—THE EDITOR.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O→ east; ←O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Uncapped Nymphs—Observations.

J. F. LATHAM.

When examining the brood-combs, the observant bee-keeper will notice, scattered over their surface, in a comparatively compact mass of capped brood, cells partly filled with honey, others filled with honey but open, and some containing honey, and sealed; while others will contain pollen in greater or less quantities. At the same time the bee-keeper will observe empty cells, cells containing eggs, larvæ in their various stages of development, capped brood and "bare-headed" nymphs, scattered here and there in combs that contain, otherwise, an unbroken mass of pollen and sealed honey.

Upon scrutinizing the combs alluded to above, it will be noticed that the orifices of the cells containing the bare-headed nymphs are slightly contracted, and protrude beyond their surroundings, evincing the appearance of having been left by the nurse-bees for a future finishing touch. The pupæ appear to be cocoonless.

When a cause for the "bare-headed" phenomena is sought, the conditions and immediate surroundings in which they exist, seem to call for some attention. Reasoning from effect to cause, several items present themselves for the exercise of thought as indices by which the investigator may be led to the true source of the *lusus naturæ*; for such it appears to be.

In many of the uncapped cells, alluded to, the larvæ die before reaching the pupæ stage, and are removed by the bees; while others reach the imago stage before vitality becomes extinct, and are removed by the bees also. In some of the cells the remains of the larvæ and pupæ will be found in all grades of decomposition, having the appearance, and emitting the odor of foul brood. When my attention was first drawn to the phenomena of "bare-headed brood," I attributed the cause to a defective development—stunted growth—the result of inefficient nursing, inadequate nourishment, lack of warmth, etc.; behind which, the constitutional stamina of the progenitors were entitled to a due share of consideration. One item in support of a defective development, so far as I have been able to ascertain, appears to exist in the fact before noted, that the bare-headed nymphs are cocoonless. If such is a fact, it presents a very sound basis for the conclusion, that a lack of vitality in the larvæ prevents them from performing a radical task—that of supplying the swaddling-bands required by nature during the transformation period.

I can recall but a few instances when I have seen many unsealed pupæ in colonies having vigorous queens, when the strength of the colony was properly divided between the duties of the brood-chamber and the supers. During the past season I hived about one-half of a medium-sized swarm on eight all-worker combs, a year old, from which the honey was extracted last fall. At the time for the brood to be capped, I found the four central combs a complete mass, one-half of which, at a fair estimate, was "bare-headed." My first thought, on observing the condition of the colony was, that the old honey adhering to combs after extracting, had generated foul brood; but as I could discern no visible evidence of the disease (other than enough to nurse conjecture), I was satisfied with the theory that the numerical strength of the colony was not adequate to the prolificness of the queen. On examining the colony afterwards, I found but few "bare-headed" nymphs, and at the present time it is among my best.

Although some of the correspondents of the AMERICAN BEE JOURNAL are inclined to infer that a cause for the "bare-headed" phenomena may be attributable to the presence of incipient foul brood, a close observation of its various conditions has not, as yet, convinced me that it is invariably a *vade mecum* of the foul brood disease, although it may, in some instances, be a premonition that the germs of that malady are lurking in the organism of the occupants of the hives or their surroundings. From a short and decisive experience with foul brood, five years ago, I am led to think that the disease, in its round of development, occupies a position in the list of maladies accompanying bee life, of a decidedly specific character; but it may not limit its ravages to any one species of insects.

Next to the diagnosis of the "bare-headed" (!) phenomena, comes the influence of their presence in the combs on the profit-and-loss aspect of the question. If bare-headed nymphs develop vigorous workers, they are harmless; but if a majority of them die before maturing, and the minority survive only to make puny laborers, their presence in the hives must surely result in loss to the apiarist.

Next in order, is the question of prevention or cure. As I am too much of a novice to attempt to dictate a method of correction, I will suggest a prevention only, viz: Keep all colonies vigorous!

Cumberland, ⚲ Me.

☞ The Pan-Handle Bee-Keepers' Association will hold its next meeting in the K. of P. Hall, No. 1138 Main St., Wheeling, W. Va., on Oct. 26 and 27, 1887. All bee-keepers are cordially invited.

W. L. KINSEY, *Sec.*

☞ The Wabash County Bee-Keepers' Association will meet in the Court House at Wabash, Ind., on Oct. 28, 1887. A large and interesting program has been arranged, and all bee-keepers are cordially invited.

F. S. COMSTOCK, *Sec.*

Pacific Rural Press.

Hints about Handling Bees—Stings, etc.

WM. MUTH-RASMUSSEN.

The bee is, as everybody knows, provided with a formidable weapon, formidable in proportion to its size and effect; but this weapon (the sting) is very seldom used, except as a means of defense. The honey-bee is naturally a peace-loving insect, and has no desire to molest anybody as long as it is left to pursue its industrious calling without interference.

While flitting from flower to flower, or sipping the water at the bank of a babbling brook, the bee has no more thought of warfare than the man who peacefully works to provide for his loved ones at home. But let an evil-disposed person try to injure this home or its occupants, or rob it of its hard-earned stores, and the man is immediately on the defense with the best means at his disposal.

Can you blame the bee, the most industrious and intelligent insect, for what you commend in man? Its sagacity and courage are to be admired rather than deplored. Without these qualities the bee and its precious stores would be a prey for numerous enemies, all too fond of insect-food and honey, and but little of the latter would fall to the share of him to whom the Creator gave "dominion over every living thing that moveth upon the earth."

It then devolves upon man to learn the nature and traits of the bees, and to so use this knowledge that he may reap the fruits of their industry without pain or danger to himself, and without unnecessary annoyance or harm to these humble servants.

The time of cruelly submitting a colony of bees to a horrible death over the brimstone-pit, for the purpose of obtaining a scant supply of honey, is past. As well might we kill the sheep to obtain its wool, or the goose for her feathers. By proper precautions there is no more danger in obtaining the honey than the wool and feathers. Certain rules must be observed, to be sure; but by means of these rules the bee-keeper is as safe at his work as a workman in any other occupation.

AVERSIONS OF BEES.

Bees dislike all black, dark or iron-gray colors; fur, hair and wool are an abomination to them. The bee-keeper should, therefore, avoid clothing of such material and colors, when in the apiary. He should also keep his hair and beard covered; and as the eyes and nostrils present dark spots in the face, more liable to attack than the smooth skin, it is generally safest to keep the whole head protected by some kind of a bee-veil. This may be simply a sack of dark-blue mosquito-bar or tarlatan, or it may be a flour-sack with a piece of wire-cloth inserted in front of the face.

The best bee-hat is made by sewing a cylinder of wire-cloth to the rim of a straw or calico hat, and adding a broad strip of cloth to the bottom of the cylinder. The cloth falls over the shoulders, or may be tucked under the coat-collar. The hands should never be protected. Any kind of glove which may be worn will be more objectionable to the bees than the bare hands. If the bees are particularly irascible, singe the hair off the back of the hands and dip them frequently in cold water.

Quick motions and sudden jars to the hive should be avoided. Hives should, therefore, never be opened in cold weather, when the propolis, with which the cover and frames are fastened, is hard, and when everything comes apart with a snap. The breath of some persons is objectionable to the bees; but in hunting for a queen on the comb, I frequently blow hard on the bees to make them disperse and move around, and I find that such a blow of cool air is less objectionable and less irritating to them than smoke.

FRIGHT OF BEES.

Bees have a natural fear of smoke. Taking advantage of this trait, smoke is the principal weapon in the hands of man with which to control, subdue or direct the bees. By judicious use of smoke the bees may be made to move in any direction desired, as they will always retreat from it.

A roll of cotton rags of the size and shape of bologna sausage makes a very good smoker. The rags should be rolled as hard as possible to prevent blazing, and tied every two inches. The bellows-smoker, now so commonly used by bee-keepers, is, however, a far superior implement, as it will burn anything that will burn in a stove, and avoids danger of fire, which is often caused by the cotton roll.

MANIPULATING COMBS.

In the manipulation of combs great care should be used not to pinch or crush any bees, as the odor of poison extruded by such is exceedingly irritating to the other bees in the hive, or to those flying about. If a bee is crushed or stings the hand, a few puffs of smoke on the spot will generally neutralize and conceal the odor of the poison.

When it is necessary to remove the bees from a comb, the best way is to shake them off, holding the frame so securely that it will not slip out of the fingers. As, however, some bees will hold on with the tenacity of a kitten, they must be brushed off. For this purpose nothing is better than a single, large eagle feather. This should be frequently dipped in water to keep it soft and pliable. A wing or brush is not desirable, as the bees may get entangled in the feathers, hair or fibers, which is very exasperating to them.

If a comb contains queen-cells, which it is desirable to save, such a comb must, however, not be shaken, as the sudden motion is liable to injure the embryo queen. The bees must then all be brushed off, and to dampen their possible ire at this proceeding, it is advisable to sprinkle them slightly, and frequently dip the feather in water. This prevents them from taking wing immediately, and getting the impression that a shower is coming up, they are more desirous of taking care of themselves than of attacking their owner.

Independence,⊶ Calif.

For the American Bee Journal.

A Full Colony of B's.

S. M'LEES.

As I have noticed the "Swarm of Be's" on page 438, and do not think it more than a nucleus, I send to the AMERICAN BEE JOURNAL what I consider a "full colony," selected from my old scrap-book.

May,⊶ Mich., Sept. 1, 1887.

[The "full colony" referred to in the above, is as follows :—ED.]

B-think ere you stumble, for what may B-fall,
B truthful to self, and B faithful to all ;
B watchful, B ready, B open, B frank,
B manly to all men, what ere B their rank.

B calm, B retiring, B ne'er led astray,
B grateful, B cautious of those who B-tray.
B careful, but yet B sure to B-stow :
B temperate, B steadfast, to anger B slow.

B earnest, B truthful, B firm and B fair.
B meek, and of all miss-B-haviour B-ware.
B pleasant, B patient, B fervent to all,
B best if you can ; but B humble withal.

B just and B generous, B honest, B wise,
B mindful of time, and B certain it flies.
B hopeful, B cheerful, B happy, B kind,
B busy of body, B modest of mind.

B brave, and B-ware of the sins that B-set,
B sure that no sin shall another B-get.
B prudent, B liberal ; of order B fond,
Buy less than you need, B-fore buying B-yond.

B prompt and B dutiful, still B polite,
B reverent, B quiet, B sure and B right.
B thoughtful, B thankful, what 'ere may B-tide ;
B trustful, B joyful, B cleanly B side.
B tender, B loving, B good and B-nign,
B-loved shalt thou B, and all else B thine.

Gleanings.

Bee-Keeping with other Pursuits.

DR. C. C. MILLER.

Should bee-keeping be made an exclusive business, or should it be pursued in conjunction with some other business? This question can be best answered after considering some of the pursuits that may be combined with bee-keeping. I am competent to speak of only a few; and if it seems really desirable that there shall be a combination, perhaps others may be called out. Perhaps I may arouse Mr. G. M. Doolittle by saying that I think he has made one of the worst combinations possible in combining bee-keeping with small-fruit raising. I think there is a somewhat general impression that bee-keeping and raising small fruits go nicely together. There is this much to say in favor of it—that the man with the right taste for bee-keeping is apt to have the right taste for a fruit-raiser; and if successful at either he would be successful at the other if he should turn his attention to it.

But a business to be combined with bee-keeping should be one that would require the attention of the bee-keeper mainly at a time when his bees require no care. So far as my experience goes, the small-fruit business requires the closest attention at the very time the bees demand it. As soon as spring has fairly opened, there is work to be done at the bees, and so there is at strawberries, raspberries, etc. As the season advances, the bees become more imperative in their demands, and so do the berries. In the height of the picking season, when the eyes of the fruit-raiser must be everywhere to see that pickers are making good work, to settle disputes, to make sure that berries are promptly sent to their proper destination, and not allowed to lie over and spoil—at this time, when the fruit-raiser, unless possessed of a very cool head, is about half crazy, the bees alone are enough to make him go distracted when a dozen swarms may come out at a time. In a word, the busy time for each comes at the same time; and what is wanted is something to occupy the *leisure* time of the bee-keeper.

Teaching school, I think, comes nearer to it; for the busy time with bees comes in the summer vacation; and one with sufficient strength and the right taste might take care of quite a number of colonies without interfering with school duties. I think, however, he would in time decide as I did, to give up one or the other. A notable exception, however, is in the case of Mr. E. A. Gastman, of Decatur, Ills., who has been for many years superintendent of schools, if I am not mistaken, and at the same time a bee-keeper. Mr. Gastman, however, is a man of magnificent physique—by the way, it just occurs to me that he is very much the build of G. M. Doolittle—and looks as if he might easily do the work of two ordinary men.

Of course, there may be many special departments in which different individuals may have developed special taste and ability, where a somewhat successful combination might be made. For instance, the teacher of the old-fashioned singing-school (now unfortunately out of vogue) could take care of bees without interfering with his "schools," held only on the long evenings.

But what we are after is something that may be done by almost any one with the requisite qualifications to be a good bee-keeper. I think I have heard poultry-keeping spoken of in connection with bee-keeping. That, again, comes too much like berry-raising. When work begins to press with the bees, old Biddy will be wanting to sit, and perhaps two or three hens will be sitting on one nest, persistently changing from where you want them, till you feel like shutting your teeth together hard, and saying, "What does make you act so, when I haven't time to fuss with you? I should just like to wring your necks for you." Yet after all this is said, there remains the fact that, in at least two instances, periodicals have been published having for their specialties bee-keeping and poultry-raising. Why this, unless the two pursuits were supposed to have some special adaptation to each other?

To tell the truth, if a young man to-day were to write me, "I have at least ordinary ability as a bee-keeper, and have decided that I must have some other pursuit to connect with bee-keeping, what shall it be?" with my present knowledge I should reply, "Keep poultry." But I would not have any hens sitting in swarming time, nor, indeed, with flocks of little chicks wandering about, trying to lose themselves in the wet grass. I have studied some little about it, and taken some observations; and I think the whole business of poultry-raising might be done almost entirely when bees require little attention.

Mind you, I do not say it is best to combine at all; but if combining is done, the merits of poultry-keeping deserve consideration.

Marengo, ♂ Ills.

For the American Bee Journal.

The Fecundation of Queens.

ARAD C. BALCH.

On page 567 is an article by Mr. N. W. McLain, on the fecundation of queens, which I have read with a great deal of interest, as he is the first man I have heard of that has sustained me in the discovery which I made 15 or 20 years ago, and have practiced more or less ever since. I have practiced principally on queens that had defective wings, and could never fly to meet the drones on the wing. I have given the manner of working, several times, in the Michigan State Bee-Keepers' conventions.

I have always found more trouble with drones than queens. I avoid that in a measure by catching drones as they come back to the hive after having their flight. I insert the sex organ of the male into the queen between the first and second rings of the abdomen on the underside of the queen. It is done in my fingers by forcing the queen's abdomen back, by pressing on it with the drone until the rings open, and then by pressing the drone, his sex organ will come out, and if held properly, the work is done. The queen will frequently draw the dead drone (if at once put on a comb) all over it, until some worker pulls it away.

If by any chance I do not succeed with the first drone, I do not try again that day; for if I use two drones, unless I cage the queen, they are almost sure to ball and kill her. Query: Is not one reason why so many queens are lost on their wedding trip, because a queen has met more than one drone?

I should think, from Mr. Otis N. Baldwin's description, that he holds them the same as I have done, but I am not sure. I succeeded in fertilizing my first queen after she had met the drones, that had hatched by the hundreds; it was at a time when Rev. L. L. Langstroth was selling queens at $10 each, and was one reared from a queen bought of him. I mated her with a pure Italian drone, and her bees were pure, which was a rare thing at first, as there were so many blacks in the country, and few Italians.

Kalamazoo, ♀ Mich.

Country Gentleman.

A Plea for Wide Frames.

GEO. A. STOCKWELL.

A light harvest demonstrates the value or convenience of the wide frame for surplus honey. In a good season the bees may fill every box in the 24 or 28 box crate. They may fill more than one, and the crates, thus filled, may be sent to market undisturbed. This is the theory of it, and a special crate is made for the purpose. But the practice is different. In sending honey to market the bee-keeper aims to make an attractive package, if he wishes to sell twice in the same place. Therefore, he will not send a crate of honey to market without first removing some of the propolis, for several reasons, viz: First, the consumer of honey, or buyer, knows nothing about propolis, and may think that it is in the honey as well as in the crate; second, the boxes covered with propolis in warm weather cannot be handled without soiling the hands, and any bee-keeper knows that "several washings" are required to remove it; and, third, honey thus sent is uncleanly in appearance.

TIERING UP.

No honey ought to be sent to market in crates used on the hives, and probably very little is so sent. Another reason for using crates is that they can be tiered up. Opinions differ as to tiering up. The advanced bee-keeper takes off the honey as soon as capped, or as soon as all or nearly all the sections in the case are capped, and does not leave "completed" honey to serve as a door-mat or a highway to an upper crate. It will become soiled.

Honey should be taken from the hive as soon after it is capped as possible. At all events, no bee-keeper wishes his honey mixed. He cannot prevent the mingling of different kinds to a certain extent, but he may have the early honey, unmixed with midsummer honey, and the latter free from fall honey.

If honey is left in the hive, some sections will have dark honey on one side and light on the other. A section taken from a hive about Aug. 1, had on one side half of the honey dark, almost black (probably chestnut honey), and the rest of that side white. Certainly, we do not want apple-bloom or raspberry honey mixed with chestnut or buckwheat honey. Therefore, honey should be removed three times in a season, if not oftener.

UTILITY OF WIDE FRAMES.

The utility of the wide frames is shown here. Suppose on the first of August it is desired to remove the surplus honey of a hive. There are eight sections in the centre capped and ready for market, and as many more are uncapped, or partly capped. The crate itself is glued fast, whatever the arrangement may be. Of course it can be removed, but it were better not to disturb it. If the crate should be removed, it must be taken into a room, for one cannot work long over a crate of honey in the open apiary. If we do, there will be no honey left for the bee-keeper.

The section boxes, also, are held fast by propolis, and it is almost impossible to remove the sections as quickly as the case demands, without breaking one of them, or an adjoining section. If, however, the wide frames are used, holding either four or eight boxes, each frame may be pried off in an instant, the bees shaken off, the completed sections pushed out, and fresh boxes inserted. The uncapped, or partly capped sections, are brought together over the centre of the hive, and the new boxes placed outside of them.

Another advantage is that only one frame is exposed at a time. After one is taken out, cover the hive with the usual cover, if convenient to handle, or have a sheet ready to draw over the hive when the frame is taken out.

There are many unfilled crates this season, and many with no more in them than when put on. Everywhere the crop is light, and the bees appear to have so little to do that they can give their whole attention to assisting the bee-keeper in removing a little honey. In an apiary of 20 colonies, and in one of 12, it has been almost impossible to open a hive without starting a bee-fight, and bee-and-man fight, for they fall upon the operator without mercy.

Providence, ♂ R. I.

For the American Bee Journal.

The Season in Central Illinois.

GEO. F. ROBBINS.

Fourteen days ago a week of rain commenced, which may, perhaps, be said to have ended our long drouth, which, in this immediate region, has lasted since June 10, and in some parts near here, a great deal longer than that. Grass, which has been dried up since early in July, is now growing nicely. But a frost a few days before the rains commenced, nipped the honey-plants, so that bees have not gathered anything for over two weeks.

We had about ten days of good honey-weather in the first half of June, with perhaps ten days more during which bees gathered any surplus at all. I took off about 725 pounds of comb honey, and extracted some 375 pounds—just one-fourth of a fair crop from 56 colonies of bees, less than 50 of them good ones. My bees managed to live and breed through the summer.

Usually the stubble fields grow considerable crops of heart's-ease, but that source of honey was this year a total failure. Goldenrod, asters and Spanish-needle were numerous, but yielded very little. I have never yet had so little honey in my hives at the close of the season as now. Yet with what they have of clover honey in their combs, and what they gathered from late flowers (which I am working to get into about six combs each), I expect to keep them until April. I had but few swarms, and only increased my apiary to 66 colonies, which I have reduced so far to 58.

There is no honey in Springfield, except a little that I took there some time ago. Some producers whom I know, rushed their honey in last July, selling it at 10 cents per pound. I expect to reserve mine for my home trade. The prospect is that I shall easily dispose of it all within a few miles of home at higher rates than last year. Very few around here obtained any surplus at all.

Mechanicsburg,⊙ Ills., Oct. 10, 1887.

Read at the Ga. Agricultural Convention.

The Developments of Bee-Keeping.

COL. J. B. MITCHELL.

From the earliest ages of the world bees have been invested with peculiar interest, and have claimed the attention, not only of the unlearned and ignorant, but of the student and naturalist as well. The mystery which so long enveloped them and their habits added not a little to the zest with which their history was investigated. The discoveries of the last thirty years, however, have so elucidated the laws of bee-instinct, that no important point is any longer a subject of controversy or mystery; and in the light now thrown upon the subject, no branch of moral economy can be more definitely regulated or conducted with such absolute certainty of success.

The management of bees can only be successful when conducted with a perfect understanding of their natural history, and in accordance with the instincts that govern them. In the words of an eminent writer on this subject, the business may be viewed as a science, having for its object the attainment of a correct knowledge of all that pertains to the life, habits and instincts of the busy bee, and as a practical art, which regards all the attainments thus made, and to be made, as the only reliable foundation of successful management.

Bees in themselves have the same essential habits that were given to them when they first winged their flight in the Garden of Eden, as permanent and unvarying as the attraction of gravitation, or the natural laws of our solar system. They act alike under like circumstances; are incapable of education, and learn nothing. It is by taking advantage of their unchangeable habits that we can control their actions and make them subservient to our own good pleasure, just as we take advantage of the immutable laws of the universe and appropriate them to our own conveniences. The laws which govern these wonderful little insects are peculiar to themselves, different from those which govern everything else. They are simple, and one can manage them in almost any way he chooses, so long as he does not go contrary to their instincts, but they are fixed and immutable, and when we deviate from them in the smallest degree, we may expect failure, either partial or total, to be the result. To be successful, then, in the practical art, the science upon which it is founded must be thoroughly understood.

All these laws are fully and clearly explained in various able works on the subject which have been published and are now accessible to all who desire to acquire a knowledge of them. It is not my purpose or intention to speak of them further than is necessary to give a general idea of what has been accomplished in climates less favorable to success than ours, and leave you to judge, if such results can be obtained in the bleak and inhospitable regions of the North, what might be done, or rather what might not be done, among our rich plants, under our sunny skies, by a system of intelligent bee-culture.

Notwithstanding the attention that bee-culture has always received, and the efforts that, from time to time, have been made to perfect some invention to assist the owner in obtaining the greatest amount of surplus honey in the best form, and with the least injury to the bees, and to also give him the control of the interior of the hive, so as to enable him, at any time, to tell if anything was wrong, and apply the remedy, it was not until the present century that such a thing was actually accomplished.

Between the years 1834 and 1845 several persons in Europe and in this country invented hives in which the combs were to be built, each on a separate bar or frame, which could be readily taken out and replaced at pleasure, and without injury to the combs, and thus a new era in bee-keeping was commenced.

There is nothing in these hives which is intended to perform the labor of the bees or their keeper. They are simply aids to the work. The great advantage they possess is the command they give of every comb, placing it in your power to know exactly the condition of your bees.

There is much difference of opinion among bee-keepers as to which is the best hive, and without pretending to say what may or may not be accomplished with other hives, it is now a matter of history that the Langstroth hive has given the best results that have ever been obtained by any hive in the world.

It is not positively certain whether bees were found in this country at the time it was first visited by Europeans or not. It is thought by some that they were, while others contend that they were not, but were imported by some of the first settlers from England. In support of this proposition we hear of a tradition among the Indians, that the appearance of honey-bees, which they called "the white man's fly," was a sure indication of the white man's coming to take possession of the land. In the investigation of this subject, which is of no great importance at this time, I have seen bees in the same locality so entirely different as to create an impression that there were at least two distinct races of the so-called black bees, and that possibly some were natives of this country, while the others were imported.

As soon as the practicability of the movable-comb hive became a certain fact, new interest was awakened in bee-culture. Hundreds were induced to commence the business that would never have done so under the old system. A new and much better system of management has been developed, larger quantities of honey have been obtained, which, going to market in better shape, has increased the demand and made a better market. A few years ago honey could only be sold in small quantities or by the hundred weight, but now it is sold by the barrel, hogshead or ton. The Agricultural Department at Washington no longer considers bee-keeping a business of no importance, but its agents all over the country now include in their reports the results of bee-keeping the same as that of other agricultural pursuits. The present production of honey in this country is estimated at about one hundred millions of pounds per annum, representing a value of about fifteen millions of dollars.

In the year 1879 two enterprising apiarists started for the Old World in quest of new species of bees, with the hope that they might discover and introduce into America some that were of more value than any we then had. After visiting the principal apiaries of Europe, they located on the island of Cyprus, where they established a large apiary in the city of Larnaca. On the island they found the Cyprian bees, a pure and distinct race, which had been isolated from all other races by confinement to that island for perhaps thousands of years. They also obtained a new variety known now as Holy-Land or Syrian bees. Some of them they got from Jerusalem, and other places in Judea; some from Jaffa, some from east of the Jordan and Dead sea, some from Damascus, and some from Mount Lebanon and other places. In the month of June, 1880, one of the apiarists returned to America, bringing a large number of the queens of these two races of bees with him, and since that time thousands of them have found their way to this country.

The Cyprians are described as bearing a close resemblance to the Italians, but having a reddish golden shield running across the back between the wings, and the under side of the abdomen being of a light golden color, which becomes darker towards the extremity. It is claimed that as honey-gatherers they are superior to any other race, but their stores are protected with so much determination that few who have encountered them once are very ready to do so the second time. I have seen but 2 colonies of them, and though I am regarded by some as an enthusiast in bee-culture, I do not hesitate to say that, if all bees were like the Cyprians, I should give up the business.

The Syrians also bear a close resemblance to Italians, but are described as being a little brighter, and perhaps a trifle smaller. They are said to be excellent honey-gatherers, and are even more sure to repel robbers than Italians, but are more irritable, and, worst of all, when once aroused, are totally indifferent to smoke, and fight undismayed to the last. Both of these races have admirers who prefer them to the more gentle and amiable Italians, but so far as my information extends, they are as yet in a hopeless minority.

Another new race introduced several years ago, from Carniola, near the Adriatic sea, is now attracting considerable attention in this country. They are described as being much like our common bees in appearance, more gentle than Italians, and good workers, but as they increase rapidly, it is said that they do not lay up as much surplus as some others. What the ultimate verdict of the public will be in regard to their value remains to be seen.

Hawkinsville,⊙ Ga.

Western Agriculturist.

How to Secure Straight Combs.

C. P. DADANT.

This is the basis of successful bee-culture, for it is impossible to handle the bees, unless the combs are hanging perfectly straight in the frames, so as to be easily taken out separately.

The plan formerly in use, and indicated by Langstroth, was a bevel on the lower side of the top-bar. This bevel, made in the shape of a **V**, was sometimes made very small, and usually succeeded tolerably. Yet it happened very often that the bees would join the comb of one frame to that of another, and when they were full of honey, it was impossible to separate them without cutting the comb and causing a great deal of honey to run out, drowning bees and sometimes attracting robbers.

The invention of comb foundation has finally and forever put an end to crooked combs, wherever it is used. Comb foundation forces them to build combs which hang in the frames "as straight as a board." Indeed, it has even one advantage over natural comb, it is more regular. This was said very truly by one of our leading bee-keepers at an Eastern convention.

There are, however, some attentions necessary in order to deprive the full benefit of the comb foundation in obtaining straight combs. For instance, the hives should be perfectly level from side to side, so that the foundation will not hang out of the frame, but will remain perpendicular in it until the bees have it finished and well fastened to the sides. It should also be well fastened to the centre of the top-bar. This is done by pressing the edge of it down on the under side of the bar with a knife, while the wax is warm enough to be quite pliable.

When foundation is given to a strong natural swarm, it should be given sparingly, not more than 2 or 3 inches deep in each frame, for if a full sheet be given, the large numbers of bees that will cluster on it will cause it to sag. Full sheets can be given safely to colonies which have been divided, or even to full colonies in early spring before they have attained full strength.

But in order to secure straight combs, it is not absolutely necessary to give more than a small strip of foundation on each frame running along the full length of the frame. With such strips on each frame, and hives set perpendicular from side to side, straight combs will be secured *every time*. It is, however, advisable to set the hive somewhat slanting forward. This will cause the water from rain or moisture to run out of the hive, and will not prevent the combs from keeping perpendicular, since the slope will be in the length of the frames, and not across them.

Hamilton,♂ Ills.

For the American Bee Journal.

My Experience with Tin-T Cases.

JAMES HEDDON.

Much has been written of late concerning this style of surplus case. As I have used tin-**T** cases for four or five years, to a greater or less extent, and along side of my old, non-reversible case, as well as my new reversible, wide frame case, and others, I would be pleased to give my opinions, formed during this experience. This year I had in use about equal parts of the three styles of cases above mentioned; or, perhaps, I may more correctly say, a majority of the tin-**T** cases.

When I do not wish to use any separators, my old-style case, now pretty well known as the "Heddon case," (which is so much used and prized by many leading apiarists both in this and other countries,) I find vastly superior to any and all others. When I come to the use of separators, then I prefer my new reversible wide-frame case to any and all others, for every reason except cost. In point of expense, the tin-**T** case is preferable where separators are to be used.

It was some five or six years ago that Mr. Vandervort, of foundation-mill-fame, first described to me his excellent process of making the tin-**T**'s in a most perfect manner; I do not know who is the prior maker and user of the tin-**T** cases, but at that time Mr. Vandervort had used them for some years.

I prefer my present style of wide cases with tin separators, to **T** cases, not because I wish to invert it, but because I can invert each longitudinal row of sections in each wide frame separately, or jump the outside rows of sections to the centre, at will. I have found very little, if any, advantage in having a surplus case reversible.

The past two years' experience has taught me the impracticability of inverting the entire surplus case at once. I cannot better give the reasons than to quote a few sentences from my former writings. With regard to inverting the surplus sections, I said:

"If the combs are not sufficiently developed, to be properly attached to the sides of the sections, they will fall over, making a bad mess. On the other hand, if they are pretty nearly all capped over, and then reversed, they will either be finished without being attached at the top at all, or else, what is oftener the case, be ridged and made to look bungling as they are attached to the bottom-piece, now at the top of the case. They are also not so white and beautiful as those not so reversed. There is, however, a short period in the development of these little surplus combs in which inverting results in all the advantages ever claimed for it; but as it is a fact that the combs of a whole case are rarely all at this stage of development at one time, I am unanimously in favor of inverting them by wide frames. I find the development in all four sections in any one wide frame, usually to be almost universally the same, which makes this system practical, and at the same time I perform this operation I am also "jumping" the outside frames to the centre (as Mr. Manum terms it) wherever I find variance in their completion. I find that variance in the completion of sections, exists from side to side, and not from end to end, of the cases; which is one fact that warrants preference for wide frames."

To conclude, I will say that whoever can afford it, will do well to adopt the wide-frame case, made with invertible wide frames, as I use them with the new-hive system. Those who are making a large number of cases, and wish to economize, will do well to use the **T**-case.

With the wide-frame case I perfer tin separators, and use none other, while with the **T**-case I use and prefer wood separators exclusively. (I am now talking about the use of cases with separators.) Without separators I would never use anything but the cases bearing my name, with wood partitions. Except that it is not well adapted to the use of separators, I consider it preferable to all other cases in every respect, and I firmly believe that it cannot be improved upon in any particular whatever. It has never been improved since I placed it before the public; and every suggestion of improvement made by myself or others, has turned out to be only a damage. I firmly believe that this will be *the* surplus case for years to come, for all those who do not use separators.

Dowagiac, ♀ Mich.

Exchange.

Preserve Empty Hives and Combs.

WILL. M. KELLOGG.

Pile up your surplus hives and boxes in a dry place, with the entrances closed to keep out the mice and "mud daubers," and then take care of those empty combs. First, sort them over, and lay to one side all the poor ones, but save all the straight worker comb, no matter if they are pretty black; they are just as good, if clean. If you have lumber to spare (or can get a large box), make a box of any size that will suit your convenience, and pile up the combs, not too tightly, in it till the box is full, standing the combs on each other, like bricks on end, just as they stood in the hive. Leave one corner open so you can place in an old tin can, in which place a few whittlings, or very rotten wood, sprinkled with a little kerosene; light this, and then pour on a couple of table-spoonfuls of sulphur, meanwhile holding your breath, or you will get a foretaste of purgatory not relishable.

You should place a board or two between the fire and the combs, to prevent the first combs getting too hot. Cover the box with boards, but leave a little ventilation both at the top and bottom or the sulphur will soon choke out. If the sulphur burns well, this will kill every moth-worm in the combs, but mind that it does not touch the eggs; give them a week to hatch, then fumigate again, and to be sure you have them all, give the combs a third dose. Those combs containing pollen you will find infested the worse.

If you have no box, and cannot spare the lumber or the money, use the empty hives, placing one of those lath division-boards between the outside comb and the can of sulphur. After each fumigation close up every crack and cranny tight, so that no moth can get in to lay her eggs. Do not say, "I guess it is all right;" *know* that it is.

Keep the moth at bay till freezing cold weather comes, and it will take care of the combs most effectually if left where they will freeze hard. But look sharp for next spring, for moths will winter through in other places, and be on the watch for empty combs. "Eternal vigilance is the price of" combs.

Now, see those old combs that have been discarded, thrown into a pile behind the shed; that will never do, that is like fencing out the old hog, and leaving a hole for the pigs to get into the garden. Just gather them up (the combs, not the pigs), hunt around the premises for all the little scraps of comb that can be found, so as to have all done in one job.

THE MAKING OF WAX.

If you have no wax-extractor, borrow the wife's boiler; pour in a couple of pailfuls of water, and place on the stove. Then put in the combs till the boiler is full, and it will soon melt down, so that you can put in more; keep punching and stirring it till you are sure that it is all melted, then take it from the fire.

Take a piece of fine wire-cloth or mosquito-bar, and push it down on the melted mass, letting the edges hang over the boiler. Now you can dip out the wax with a small dipper, through the wire-cloth which strains out the coarse dross, into a wet or greased pan. You can get one or two panfuls of clear wax, then use pans of cold water, so as to cool the wax as soon as dipped off, and cause it to float. You will need to move the dipping spot all around the inside of the boiler to get all of the wax. The fine dross will gather on the bottom of the cakes, and can be scraped off.

If you want the cakes to cool without cracking, place them in a rather warm room, where there is little jar, and cover the pans with a board. The wax being made, now clean off the boiler and the pans, or woe unto you when the next wash-day comes. There will be a little wax sticking to the tin, and the best and surest way I know (yes, I tried kerosene), is to wash it off with a wet rag, sand, and lots of elbow-grease. But those nice cakes of wax will pay for all the trouble, and if the good wife scolds about a few spots of wax on her clean floor, just give her one of the biggest cakes for "pin-money."

Oquawka, Ills.

Essex Record.

Ancient and Modern Honey.

A. B. WEED.

Honey is one of the oldest luxuries. We find it mentioned as early as 1707 B. C., when we read in Genesis 43, 11, that it is classed with the "best fruits of the land." It always seems to have been highly esteemed and regarded as a luxury. In the Bible it is used as a symbol of the agricultural wealth of a country; the expression, "a land flowing with milk and honey," is used to indicate an exceedingly desirable country. The expression is well considered, as the amount of honey and the variety of kinds gathered, is indicative of the flora of a country. Honey is gathered from all sources. Nature's cornucopia is tributary to the bee-hive. Honey is the pure nectar of plants; it is not altered in any way by the bees, except that they ripen it by evaporating the water from it, as the maple-sugar maker does the sap.

Until modern times, honey seems to have been regarded much as a special gift of nature, and but slightly consequent upon man's efforts to obtain it, further than the robbing of the bees. This is probably accounted for by the fact that bees were commonly regarded with fear, which amounted in some people to terror; and until the invention of modern hives and apiarian implements, there has been no way of controlling bees or obtaining their honey in a marketable state. Now that bee-keeping has become systematized, and has taken its place among other active pursuits, one of the first things that the honey-producer finds necessary, is to prepare his wares for the market in attractive style.

Honey, years ago, was obtainable only in large, rough boxes containing large amounts; the price has also been very high. Now that the demands of the market are studied, we find it offered in packages of convenient size, and of such attractive appearance that it readily finds its way to the table. Its present price puts it within the reach of all, and when its healthfulness is considered, it is seen to be the cheapest sweet known.

Honey should be kept in the dark, and in a temperature not lower than 70°; this is its condition in the hive. If it is exposed to cold and light, it will crystallize or candy. Many people, seeing it in this state, and not knowing the cause, believe that they have discovered sugar in it; on the contrary, this candying is trustworthy evidence of purity. If it is warmed—not heated—it resumes its original appearance.

If buyers insist on having an article that is not affected by circumstances, they will probably get it; but it will not be pure honey. Dealers who have it for sale should understand its peculiarities. Honey is one of the purest sweets used, and when its healthfulness is considered, one of the cheapest.

Detroit, Mich.

The Bees of Mexico.

It is always interesting and profitable to the thoroughly earnest apicultural student, to learn all that is known about the various races of bees, and especially concerning the bees of the different parts of the particular continent upon which one lives. Hence, we believe that the following article from the *British Bee Journal*, regarding the bees of our sister republic, Mexico, will be read with no little interest, and will contribute somewhat to the ever-increasing fund of knowledge already possessed about these wonderful little insects—the treasurers of that sweetest of all sweets—pure honey. The article is as follows:

There is not so much known about the different bees in the American Continent as might be expected. In these days, when there is a great tendency to obtain everything new and novel, and when there is such a great desire to introduce new races, it cannot be unprofitable to glean what information we can of the numerous varieties.

By the Mexican bee many have thought that there is only one variety, "the stingless bee;" but besides this we are assured there are many other kinds domesticated in that country. We doubt but that many of the species which are said to be without stings do in fact possess that organ, though often a feeble one, and are not readily provoked to use it. Great attention is paid to the Mexican bees by the natives, not so much on account of their honey, although remarkably rich and delicate, as for the sale of the wax. In Yucatan there are colonies of them domesticated, consisting of five or six hundred.

Hernandez describes several kinds of the insect in Mexico—one resembling the European, and which produces a honey like our own. It is domesticated by the Indians, who lodge the swarms, he says, in the hollows of trees. A second species is noticed by the same author as smaller than ours, so much as to resemble smaller "winged ants," and as without stings. They build their nests, which are composed of several layers, in the rocks, and also suspend them on trees. Their honey is dark-colored and high-flavored. The cells are of smaller dimensions than those of the domestic bee; and it is probable, though not so stated, contain only brood; the honey being found in small cups. The larvæ, it appears, was esteemed a delicacy, for the historian tells us that when roasted and seasoned with salt, they have the taste and flavor of sweet almonds. This species collect their honey and live much in the same way with the honey-bees of Europe. Other small stingless bees are mentioned, which establish themselves underground in nests of a gobular shape, but of very coarse workmanship; their honey, too, is inferior, and is never used but in default of better.

In domesticating their bees, the Mexicans lodge them in hives formed of short logs of wood, from 2 to 3 feet long, hollowed out about 5 inches in diameter, having the ends filled with clay, and a hole for the entrance bored on one side, about half-way between the ends. They are suspended in a horizontal position from the branches of trees.

The interior of a hive presents, like that of a humble-bee, a confused and irregular appearance. The combs, which have but one series of cells, are placed,some in a vertical position, and others horizontal. They are grouped together in an oval mass, and occupy nearly half of the internal space, while the other half is stored with the honey cups. The honey, as has been stated, is deposited in small globular bags, hung around the sides of the hives, or placed at the bottom; some of these receptacles are more than 1½ inches in diameter; and in many instances are so connected together that, as in the case of cells of common honey-comb, one side serves for two cups,thus combining economy and strength. And these magazines of honey being altogether apart from the brood combs, and in no ways connected with them, great facility is afforded in depriving the bees of their stores. The honey is thin in consistency, but of a very agreeable flavor, and gives out a rich, aromatic perfume. The wax is coarse, and of a brownish yellow; propolis does not appear to be used.

The Mexican bee is smaller by one-fifth than the European. Many of the species to which have been given the denomination of Melipona, or Trigona, are described as having no stings, or at least so feeble a weapon as to produce no sensible injury; and from this circumstance they are known in the Spanish colonies by the name of Angelitos, or little angels. The population of a hive is generally under a thousand.

A glance at the habits of some of the many varieties cannot fail to be of great interest, although the introduction into our apiaries of the so-called "stingless bee" might be the reverse of an improvement. We have noticed that the honey in Mexico obtained from these bees was thin in consistency, and this in a country where the bee-flora is almost perfect; what could we expect on these shores? perhaps the honey would not keep, and soon turn sour. The fact of the Mexican bee storing its honey in large cells, or cups, and always away from the brood—what a revolution in apiculture its introduction would cause!

* * *

Ohio Poultry Journal.

The Fruit and Honey Crops.

J. P. JOHNSON.

The honey crop this year is a failure throughout the United States, except California. There are a great many colonies of bees that will starve before the first of January if not fed, and probably two-thirds of all the bees east of the Rocky Mountains will have to be fed before spring, or they will starve to death. But this should not discourage the bee-keeper, as there are failures in all kinds of business. The farmer fails every seven or eight years in raising a wheat crop, and this year he has failed to a great extent in raising a corn crop. Still he is not discouraged, but goes at it with renewed energy the next year, as if his crops had all been a grand success.

In bee-keeping there will be dry seasons that will keep the bees from accumulating any surplus honey, and there will be winters that all the bees will die except those in the hands of the careful and experienced apiarist. Still this should not keep the lovers of honey—the purest and healthiest of sweets—from keeping bees. There may be years before there is another such a season as this one.

We have been keeping bees for years, and this is the first year that we did not get honey enough to supply our table. Still, we are not discouraged; next year will probably be one of the best honey seasons we have had for years, as one extreme brings on another. It is the opinion of a great number of scientific men who have made it their study, that if it were not for the bees the fruit-crop would be a failure, as the bees assist in distributing the pollen while the fruit is in bloom. Last spring, during the time the fruit was in bloom, it was windy, wet, and cold; so much so that the bees could not fly out. The result was, there was but little fruit of any kind. Horticulturists say that this was caused by the unfertilization of the bloom; and that the bees are of great use in this respect. So it seems that if we get but little honey, it will pay to keep bees, as the fruit-crop is worth more to the country than the honey-crop.

Honey is scarce and high in price, and those that have honey to sell will hold it for the high price they can get. Take care of the bees; examine them occasionally, to see if they have plenty of stores to winter on, and if not, feed them. Granulated sugar is the best feed, and the only feed that is safe to winter on. Of course honey is better than anything else, but it does not pay the bee-keeper to feed honey when sugar will do as well. Feed all light colonies of bees, in October, till they have from 20 to 40 lbs. of stores.

Take good care of your bees, and we are satisfied that you will never regret it. If they did not gather much honey this year, there is no knowing what the future has in store for you.

Piqua,+○ O.

Local Convention Directory.

1887. *Time and place of Meeting.*

Oct. 26.—Wabash County, at Wabash, Ind.
F. S. Comstock, Sec., North Manchester, Ind.

Oct. 26, 27.—Pan-Handle, at Wheeling, W. Va.
W. L. Kinsey, Sec., Blaine, O.

Oct. 28.—Darke County, at Arcanum, O.
J. A. Roe, Sec., Union City, Ind.

Nov. 16.—Western, at Kansas City, Mo.
J. A. Nelson, Sec., Muncie, Kans.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Superiority of the Italians.—Burke Salkeld, Babylon,+○ Ills., on Oct. 10, 1887, writes:

This has been a very poor season for honey, and has proven the superiority of Italian bees. My Italians gathered 25 pounds per colony, while the blacks, fully as strong, did nothing but try to rob.

Report for 1887.—8—P. J. England, (38—38), Fancy Prairie,⊙ Ills., on Oct. 11, 1887, says:

I have secured 1,600 pounds of extracted honey this year, and it is all sold. Last year my bees averaged 200 pounds per colony. Old fogy bee-keepers are very "blue," and a great many of their bees have already perished.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

W. Z. Hutchinson, *Sec.*

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. – It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches. – We nave now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote ew hours, to get subscribers.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books**, bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged.

The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., **40** cts.; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Receipts continue light, and prices tend higher.

Oct. 14. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—We quote : White comb in 1-lb. sections brings 18@20c., according to its appearance. Very little call for dark or buckwheat comb honey. Extracted, 7@10c.

BEESWAX.—22@23c. R. A. BURNETT,
Oct. 1. 161 South Water St.

DETROIT.

HONEY.—Best white comb brings 16@18c.

BEESWAX.—23c.

Sept. 20. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 18@19 cts.: 2-lbs., 16@17c. White clover extracted, 8c.

BEESWAX.—25c.

Oct. 5. A. C. KENDEL, 115 Ontario St.

BOSTON .

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c.

BEESWAX.—25 cts. per lb.

Sept. 16. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, scarce at 7c.; amber to light amber, 5½@8½c. Comb, amber to white 2-lbs., 13@16c.; 1-lbs. 15@17c. Demand is good, but arrivals and supplies are very small.

BEESWAX.—22@23c. for good quality

Oct. 4. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White to extra white comb 16@18c., amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candled, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.

Oct. 3. O. B. SMITH & CO., 423 Front St.

MILWAUKEE.

HONEY.—Choice 1-lbs., 17@18c.; 2-bs., 15@16c. White extracted in kegs and barrels, 7½@8c., and in tin cans, 8c.; dark in kegs and barrels, 6@6½c., in tin cans, 6½@7c. Demand good; supply limited.

BEESWAX.—25c.

Aug 26. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.

McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.

BEESWAX.—21 to 22c.

Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.

Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 13@14c.; latter price for, choice white clover in good condition. Strained, in barrels, 4@4¼c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 4½@5½c.; in cans, 6½ to 7c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.

Sept. 22. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.; 2-lbs glassed, 10c. Extracted, white, 9@10c.; dark, 6@7c. Demand good, market firm.

Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.

Oct. 10. ARTHUR TODD, 2122 N. Front St.

◆

☞ The Western Bee-Keepers' Society will hold a meeting on Wednesday, Nov. 16, 1887, at the residence of Mr. Peter Otto, corner of Park and 25th Streets, Kansas City, Mo. Take the 18th Street horse-cars at 9th & Main Sts. for 18th & Brooklyn Sts., thence walk south to 25th St., and thence east one block to the house. We are sure of a cordial welcome from Mr. and Mrs. Otto, and expect a good meeting. JAS. A. NELSON, *Sec.*

◆

Wanted.—The following numbers of the AMERICAN BEE JOURNAL :

For **1882,** Numbers 2, 4, 8, 9, 13, 20, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 42, 43, 45, 47, 48 and 51.

For **1884,** Numbers 1, 3, 5, 9, 13, 16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 33, 38, 41, 46, 47, 48, 50, 51 and 52.

Any one having them to spare, can write to us, and we will make an offer for them. Do not send them without correspondence, as we shall take only **one** set of the numbers to complete Volumes for one of our correspondents.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent ; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Queens.—We can mail a Tested Italian Queen (bred for the best results as well as for beauty) for $2.00; Untested Queens, $1 each, or $9.00 per dozen. Orders solicited.

◆

Our New Book List on the second page is the place from which to select the book you want. We have a large stock of every book there named, and can fill all orders on the day they are received.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

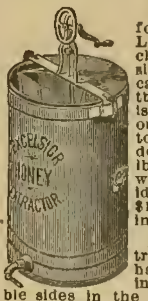
COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

Bee-Keepers' Cards. HEAD-QUARTERS!—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery. Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.
Address J. H. MARTIN,
4A1y HARTFORD, Washington Co., N.Y.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,		13x13	inches	..........$8 00
For 2 Langstroth	"	10x18	"	.... 8 00
For 3 "	"	10x18	"	..........10 00
For 4 "	"	10x18	"	..........14 00
For 2 frames of any size,		13x20	"	..........12 00
For 3 "	"	13x20	"	..........12 00
For 4 "	"	13x20	"	..........16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

$1. Why Not

SUBSCRIBE FOR THE

PRACTICAL FARMER?

It is 33 years old, has **16** pages, is published **Every Week** in the year, contains **14** Departments, treating of every phase of Farm work and Life, by practical farmers and the best Writers in the country. Has the best Market Reports. **30,000 subscribers pronounce it the best Weekly Agricultural Journal in the Country.** Only

$1 Per Year, Postage Paid.

$1 ☞ If you subscribe before January 1, 1888, you will get the remaining numbers of this year **Free.**
Address,

THE FARMER CO.,
1420 Chestnut St., Philadelphia, Pa.
41A12t

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

Established 1857.
BAKER & CO
Satisfaction Guaranteed
DESIGNERS AND
ENGRAVERS ON WOOD
CORNER OF
CLARK & MONROE STS.
FOOT BLOCK.
CHICAGO.
DEALERS IN
ENGRAVERS TOOLS & SUPPLIES.

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

Send 75 Cents for my New Book—"A Year among the Bees;" 114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

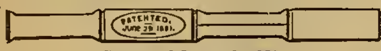
HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,

MANUFACTURED BY

J. Forncrook & Co., Watertown, Wis.


PATENTED JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish **VAN DEUSENS'** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb. ☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

THOS. G. NEWMAN & SON.,
923 & 925 W. Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

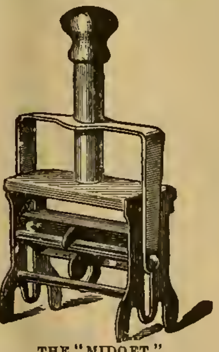
F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

SELF-INKING RUBBER-STAMP.

2,000

Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,



THE "MIDGET."

GEO. T. HAMMOND,
BROCKPORT, Monroe Co., N. Y. 26Etf

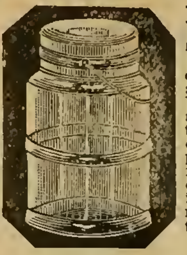
NEW ONE-POUND HONEY PAIL.

THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	$1.60
" 2 pounds " "	.....	2.00
" 3 " " "	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

SAMPLE COPIES

OF THE

AMERICAN APICULTURIST

sent free. Address,
39Atf "API," WENHAM, MASS.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ₰ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

WORK FOR ALL. $50 A WEEK & expenses paid. Outfit worth $5 & particulars free.-**P. O. Vickery, Augusta, Me.**
39A8t

FOR SALE in CALIFORNIA.

ON account of the death of the proprietor, Mr. J. D. Enas, a RANCH of 240 Acres, partly Fruit—80 Colonies of Bees, Steam Machinery for the manufacture of Supplies for bee-keepers (a well-established business). The Land will be sold in 40 or 80 acre tracts. Also, Stock, the Farming Implements, and a large stock of Apiarian Supplies. For particulars, address

MRS. J. D. ENAS, (P. O. Box 306),
38A6t NAPA CITY, CALIFORNIA.

NEWSPAPER AND JOB PRINTING OFFICE

For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Oct. 26, 1887. No. 43.

After Awhile—a busy brain
Will rest from all its care and pain.
After awhile—earth's rush will cease,
And a wearied heart find sweet release.
After awhile—a vanished face,
An empty seat, a vacant place.
After awhile—a name forgot,
A crumbled head-stone—unknown spot.

◆

The Pennsylvania State Agricultural Society at the Exhibition held at Philadelphia, Pa., Sept. 17, 1887, awarded the first-class diploma to E. J. Baxter, of Nauvoo, Ills., for the best 10 pounds of extracted honey.

◆

Reduced Rates on all railroads are granted to attend the Fat Stock Show in Chicago from Nov. 8 to 18, 1887. Tickets will be issued at one-and-one-fifth fare for the round trip. Bee-keepers who wish to see the Fat Stock Show should come the last and best week, and can then attend the convention which occurs on the last three days, Wednesday to Friday, Nov. 16 to 18. The meeting will be held at the Commercial Hotel, on the corner of Lake and Dearborn streets, within a few blocks of all the railroad depots. The invitation is general—COME.

◆

Mr. and Mrs. T. W. Cowan have, no doubt, reached their home long ere this, and we hope with renewed energies and recruited health. Mr. Cowan, in the last issue of the *British Bee Journal*, makes mention of the "hearty welcome" he received in America, in these words :

> We have, throughout our journey, been treated with the greatest hospitality and consideration, and shall ever remember with pleasure our coming over to this New World—so wonderful in its growth and spirit of progress. We shall carry away with us pleasant recollections, many of which appear later on in the pages of the *Journal*. Suffice it now to say, we are anxious to state this at once that our friends may see how much we have appreciated their kindness.

We remember with pleasure the visit of our cotemporary to Chicago, and shall be glad to record his safe return to his home and his multitudinous duties in connection with apiculture.

A New Invention.—The Rev. W. F. Clarke has been on a visit to Mr. D. A. Jones, and says in *Gleanings* that he had a triple surprise. The first being that Mr. Jones had joined the church ; the next is that he had given additional proof to the hibernation theory, by demonstrating that bees can live without food for three weeks. On this point Mr. Clarke says :

> Mr. Jones has demonstrated that bees can live without food for a considerable space of time. Three weeks is the longest period he has proved to be safe, but he is inclined to think that bees can fast longer than that without risk. I have no doubt that, in the winter cluster, they can go for a month without eating. Of course, this does not prove the fact of hibernation, but it harmonizes with the theory most completely, and naturally suggests a species of dormancy during long fasts. It would seem a wise adaptation of Nature and Providence that insects, gifted with such intense activity during the working season, should undergo a change to fit them for long spells of rest during cold weather. If that change lulls their intense activity into comfortable repose, and so quiets down all their functions that digestion becomes a very slow process, and they need a meal only now and then, we have a wonderful and beautiful example of that harmony between the various forms of animated life and their environment, of which we see so much in other departments of nature.

On the third surprise, Mr. Clarke gives the following extravagant opinion. He is careful not to "give it away," or to describe it, and in-so-far is guilty of just what he has many times severely condemned in others at conventions, etc., but perhaps he is holding it back to electrify the coming Union Convention at Chicago next month. This is what he says concerning it :

> My third surprise was created by an invention which will shortly cause a great commotion among the dry bones, and not yet extinct fossils of bee-dom : for there are those who have virtually taken the position in regard to apiculture that the new is not true, and the true is not new. Nobody can invent anything any more in connection with bee-keeping What will these modern mummies think or say when I tell them that friend Jones has invented an appliance practicable with all movable-frame hives, from the old Langstroth to the new Heddon, which revolutionizes the manipulation of them, and will reduce the cost of comb honey production at least 25 per cent ? It is applicable to both open and closed-end frames, both to the brood and section departments of a hive : dispenses with tin strips and thumb-screws, prevents frames and sections being fastened with propolis, and is, by all odds, the best invertible, convertible, and change-placeable contrivance yet devised. By its use, you can turn over a hive in a twinkling if you wish to do so, and take it all apart with equal celerity : you can manipulate brood-chambers and section-cases at will, and do it all without rough disturbance of the bees. The crowning marvel of this new invention is, that it is ridiculously cheap, costing only a few cents. It is so simple that you are ready to wonder why every practical bee-keeper did not think of it at one and the same time, and you can hardly help laughing outright at the stupidity of the whole tribe, that not one of their number ever thought of it before. I know that all this will seem ridiculously extravagant to many, who will be ready to think I am easily carried away, and soon excited. Well, I have no ax to grind, except the ax of universal apiculture, so I can afford to be pooh-poohed, and I rather enjoy the fun of tormenting prejudiced unbelievers. To all such, let me say in conclusion, "LOOK OUT FOR THE LOCOMOTIVE WHEN THE BELL RINGS."

◆

Mr. A. E. Manum will ship about eight tons of honey this year. This is about two-thirds of an average crop. This seems to be about the average for New England.

The Judge Never Heard of such a lawsuit before. That is what is affirmed of the "Rich" case mentioned last week. It was tried before Judge Boardman at Ithaca, N. Y., and Mr. Rich writes us as follows concerning the Judge and his rulings :

> I now write you the result of my case in the Supreme Court. The plaintiff received six cents damages, and the costs are taxed to me. The Judge granted an injunction to move the bees, and we have got a stay of proceedings for ninety days. We did everything possible, and the facts were all set up in good shape. But the Judge ruled against us from the beginning to the end, and in charging the jury compared the bees to a pig-sty and a slaughter-house. What do you think of that?
>
> This was the first case with one exception ever tried in the State, and the Judge had no law to go by, so ruled just according as *he* thought, with the above result.

Mr. Olmstead sued Mr. Rich for $1,500 (and was awarded 6 cents) as damages. This case cannot remain where it is, and the Bee-Keepers' Union will, in all probability, take an appeal. While the payment of 6 cents is an easy matter, the costs are heavy. But the point is, that the bees must be removed as a nuisance ; just like "a pig-sty or slaughter-pen," says Judge Boardman.

No, sir ; the bees must *not* be likened to a pig-sty or a slaughter-pen ! Bee-keeping is an honest and honorable pursuit, and its rights must be preserved.

◆

Mrs. L. Harrison referred to the late visit of Mr. Cowan (in the *Prairie Farmer*) in these words :

> Mr. Thomas William Cowan, editor of the *British Bee Journal*, has lately visited this country and the offices of bee-publications and prominent apiarists. He reads most of the modern languages, and is possessor of one of the largest libraries exclusively on bees in the world, and is acquainted with almost everything that has been written on bees, whether of the present or past. He brought with him one of the best and finest of microscopes, and examined with it foul brood as it is developed in this country, and pronounced it to be identical with that of Europe. This visit of Mr. Cowan and wife will form a pleasant and profitable page in the history of those who enjoyed it, and that they may safely return in health and happiness, is the prayer of their many American friends.

◆

We have Received some of the honey-candies made by Mr. Arthur Todd, of Philadelphia, Pa., and can vouch for them as being of excellent quality. To the children such candies are a boon, being so much superior to the ordinary poisonous ones. If the children must have sweets, let them have honey-candy, fresh and pure.

◆

An Examination of the *Illustrated London News* (American reprint) for Oct. 22, will show the English view of the trial yacht race, illustrations in connection with the state of Ireland, etc. The price of the number being only 10 cents, places it within the reach of all. Every news-dealer has it. The office of publication is in the Potter Building, New York.

◆

A Hive is a Box or House where a colony of bees reside ; the *stand* is the place where the hive is located ; the family of bees is, when organized, a *colony* ; the bees leaving the colony with a queen to form increase, is a *swarm*.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Colonies that Killed their Queens.

Query 486.—In the apiary referred to in Query 487, the bees killed very early, just after being put out in the spring, several queens, and quite a number of neighboring apiarists had the same experience. It was so here, also. Can you give a plausible reason for the bees doing as they did?—W., New York.

We do not think the bees killed their queens. We think the queens died, of disease.—DADANT & SON.

No. Bees often do so. Perhaps the queens were poor and needed superseding.—C. C. MILLER.

No, not without seeing or knowing more of the details of the condition of affairs in the apiary referred to.—JAMES HEDDON.

I can give no reason why this should have occurred to a greater extent one year than another, unless it might have been lack of a honey-flow, or something of that kind.—W. Z. HUTCHINSON.

I can give no plausible reason why bees should "kill" their queens in early spring. It often happens that weak, badly-wintered colonies lose their queens in the spring, but the quees are not "killed."—G. L. TINKER.

The queens were lacking in vigor, or at least such was the case when my bees did the same thing some 12 years ago.—G. M. DOOLITTLE.

Many plausible reasons could be given, but it would be all speculation in your case. I have known bees to mix up when first put out, and kill several queens.—H. D. CUTTING.

Such freaks of bees killing their queens early in the spring are common. As the cause is not always the same, I cannot tell what prompted it in your case, without knowing their condition at the time.—J. P. H. BROWN.

I cannot, and do not think that any one else can. I can guess a dozen things that might be right or wrong, and just as liable to be wrong as right. If all the particulars were stated in a question, answers of more value could be given.—J. E. POND.

It is not unusual for bees to "ball" and kill their queens early in the spring. It seems to be the result of discouraging conditions with which they are surrounded; and sometimes it has the appearance of pure meanness. I lost about 10 good queens in this way during our deep snow last March. I have proven to my satisfaction that the fault is not usually with the queen. If the queen is taken away from the bees when they are balling her, she will do good service when the bees become reconciled to her.—G. W. DEMAREE.

Probably the queens were diseased or disabled, and were superseded. Bees do not usually *kill* their queens in the spring, if they are of value.—THE EDITOR.

Will the Bees Winter?

Query 487.—The brood-chamber of a hive has all the combs full of honey, but the bees will not work in the upper story. The bees hang out. There is not a particle of room for the queen. Will these bees live until spring? What should be done? There is about 6x8 inches of worker brood, and no drones to be seen. It has 13 frames, 12x12 inches. My friend has 17 colonies in about the same condition. He asked what was best to do. My reply was, take away half of the frames and insert as many frames of full sheets of foundation. He asked why strips 2 inches wide would not answer. I replied, "Because you would get drone comb." Was I right?—New York.

It would all depend upon the time of the season, and the age of the queen, in regard to the drone comb. I should prefer old comb to foundation for bees to winter on.—H. D. CUTTING.

Let them severely alone. By the time you get them fixed up it will be too late for brood-rearing.—C. C. MILLER.

You might take out a few frames of capped honey, and give frames of empty comb in their place. It is too late for foundation. But if let alone and properly prepared for winter, they will come out strong in the spring.—J. P. H. BROWN.

If you had been one of those who "get there," as Mr. Heddon terms it, no such state of affairs would have existed. My advice to you for the future would be the words of our much-honored Quinby, viz: "See your bees often." There is no remedy left thus late in the season, except to double up the colonies.—G. M. DOOLITTLE.

At this season, we should have left those colonies as they were. They must be in good health. It is too late to build comb. Two-inch strips will give bees a chance to build drone-comb, and you were right in that particular.—DADANT & SON.

I wish my bees were that well off for stores; perhaps it is time for them to "wind up" the breeding business for the season. I would not disturb them this late in the season, unless they needed room to store honey. But I guess from what you say, there is no honey to gather, or your bees would not refuse to store honey in the upper stories.—G. W. DEMAREE.

Do not get scared. Let those bees and combs alone, and if the seeds of diarrhea are not in the hives, and they are properly protected through the winter, they will come out all right in 1888. It is now too late for your plan to work well.—JAMES HEDDON.

I am unable to give an intelligent answer to this query, for like many that are found in this department, it gives only a few facts, but not enough from which to form a correct diagnosis, or give a prognosis, except by chance, as an answer will be all guess-word. Numbers 485 and 488 are of the same stamp.—J. E. POND.

At this time of the year a colony with but little brood, and stores in plenty, is in fine condition. When the query was written it might not be. Yes, the bees would probably have built drone-comb.—W. Z. HUTCHINSON.

Only five such frames full of honey will be sufficient to winter the bees. It would be better to extract one comb for each colony, put this in the center with the five frames of honey, and put in a division-board. The bees will winter better on 6 than on 13 such combs, especially if not strong in numbers.—G. L. TINKER.

It is too late now to give the bees comb foundation. Let them alone until spring comes; they must have sufficient honey for winter stores, as you claim that the queen has no room to lay.—THE EDITOR.

Building up Colonies for Winter.

Query 488.—A friend has bees in about the same condition as in Query 485. He asked what was best to do under the circumstances. My advice was to insert at once full frames of foundation in the centre of the brood-nest, or better, if he had them, empty combs, and feed a little sugar every night. Did I advise correctly?—Collamer, N. Y.

Yes.—G. W. DEMAREE.

You did. Empty combs would be better.—J. P. H. BROWN.

If the bees were lacking in numbers, it was good advice.—W. Z. HUTCHINSON.

Yes, in July and August, but not for September and October. It is too late now.—A. J. COOK.

Your plan may work well, but I do not like patching up matters late in the season.—C. C. MILLER.

If the advice was given the forepart of August it would be very good. If in September, there would little good come of it, in my opinion.—G. M. DOOLITTLE.

Your advice would be all right if not too late in the season. I find that one cannot make queens lay just when he wants them to.—H. D. CUTTING.

It is now too late to get much brood started by feeding. If the colonies have plenty of honey, and are not too weak, the advice given will be good next spring.—G. L. TINKER.

Yes; still it may do no good. By-and-by, when preparing the bees for winter, you can double them up. I should advise a change of queens at any rate, as the fault is in all probability with them. See answer to No. 485.—J. E. POND.

I do not think that any such manipulation is necessary, and besides, I never want combs built between completed ones. I think that the querist of No. 488 is more scared than hurt.—JAMES HEDDON.

Queens cannot be *compelled* to lay eggs at any time, and especially when out of season. It would be better to supersede the queen or unite with another colony, as advised in reply to Query No. 485. It is too late now for feeding to induce brood-rearing.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⟜ east; ⊸ west; and this ♂ northeast; ↖ northwest; ↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Report for the Season of 1887.

G. M. DOOLITTLE.

The first of June found me with only 26 queens in my yard, 15 of which were mothers to fair colonies of bees, 5 were mothers to rather weak colonies, while the remaining 6 had only about bees enough to hold their queens till steady warm weather should come. My bees were wintered as heretofore, about one-half on the summer stands, and the rest in the cellar. Those in the cellar wintered the best, the loss being only one colony in fifty, while among those on the summer stands there was a loss of six out of forty.

As I look back over the past, I can but wonder that the loss was not greater, as these bees were kept confined to their hives by steady cold weather from Nov. 10 to April 10, or just five months. Five months of such severe weather as we had last winter is very trying to bees on the summer stands, and as the cold held on day after day, and week after week, after others had reported "bees had a flight," I came nearly deciding that I would get out of the cold climate of "old cold Spafford," as our town is called, and seek a more favorable locality. However, the ties that bind me here are so strong that I presume I shall always stay here, trying, as in the past, to breed up a race of bees hardy enough to stand the cold climate that they must endure.

After getting the bees out of their winter quarters, the spring proved on the whole very unfavorable, the nights being cold all the while till nearly July. I had intended to keep about 40 colonies with which to commence the season of 1887, but owing to my great correspondence and other pressing matters, I found that I was being overworked, so much so that my physician said that I must do less or break down in health; so I concluded to sell my bees down to the number of colonies spoken of at the beginning of this article.

In selling I sent off my best colonies, and in reality I had but one really good colony left with the number kept; I kept that to rear early drones with, as the mother was an excellent queen for drones. When willow and hard maple bloomed, the bees gathered quite freely for brood-rearing, of both honey and pollen, and had it not been for the cold nights, a much larger force of bees might have been secured for the harvest.

Of the 26 colonies, I set apart 20 for producing honey, hoping to make nuclei for queen-rearing out of the 6 weak ones; but at about this time the demand for queens was so great that I thought I should have to use all the colonies I had for queen-rearing, or get "swamped." However, I managed by working the bees for all they were worth, to keep the 20 colonies along in fair condition, and yet draw on them every few days for bees and brood to make nuclei. Of course this lessened my prospects for honey to quite a large extent, but I considered it much better than to destroy the whole prospect by breaking them up entirely.

Owing to the cold nights, and this continual drawing of bees and brood from them, I saw that I could get no large yield of honey if the season proved ever so good, for I had not the brood necessary in the hives at the right time to give me an abundance of bees during the bloom of basswood, which is our great honey-producer. In order to get a good honey-yield, the hive must be full of brood at least 37 days before the honey harvest, and at that time my hives were not half full. Considering this fact, I was greatly surprised that the bees did as well as they did.

When apple trees blossomed, the weather was unfavorable, so that no surplus was obtained, and had it not been that there was considerable old honey in the hives, I should have had to feed. White and Alsike clover yielded so as to give the bees a living, and plenty for brood-rearing. Basswood opened on July 5, and bloomed for nearly two weeks, during which time the bees stored honey well, considering the number of field-bees present in the hives. Teasel gave a very little honey, after basswood, which was quite a help by way of getting many nearly-filled sections sealed over.

A good acreage of buckwheat had been sown for this locality, and I had strong hopes that a yield from this source might be obtained, but for the tenth time in succession I was disappointed, for not enough was gathered to show any surplus, even in the brood-combs, after it had gone out of blossom. The last year in which buckwheat gave any surplus with me, was in 1877. What the trouble is, that this plant does not secrete honey of any amount in this place, I do not know, unless it is because I live in a cold, frosty valley.

Of the 20 colonies only 14 swarmed, so that the increase was very light except as I made a few colonies by division, after the season was over. My present number is 40 fair colonies in readiness for winter, and 20 very small ones made from doubled-up nuclei; all of which had stores enough for winter except the nuclei, which had to be fed a part or all of their winter stores.

The result of the season is an average of about 52 pounds of honey from each of the 20 colonies, the whole amount being 1,039 pounds, 722 pounds of which was comb honey. The amount received for queens, nuclei, etc., up to Oct. 10, was about $700.

Taking it as a whole, I have no reason to complain regarding the result of the year 1887, unless perhaps it is that I have been so crowded with work that I have not found time for the improvement of my mind, which I would like; nor to make the many experiments that I had proposed to try.

Borodino,⊙ N. Y., Oct. 17, 1887.

Bee-Keepers' Magazine.

A New Way of Introducing Queens.

H. H. FLICK.

Many valuable queens are lost annually by introducing, some colonies refusing to receive a new queen by any of the old methods. There have been various plans devised and described, but every one thus far failed in many instances, and often the most valuable queens are thus lost, and the apiarist greatly disappointed.

All the different plans I have ever seen are more or less a violation of nature's laws, and thus place the colony in an abnormal condition, causing the bees to become cross, and constantly on the watch to wreak their vengeance on some intruder.

So long as a colony does not accept the queen, that colony is practically queenless, although the new queen may be caged inside the hive; and every observant apiarist knows that when a colony becomes queenless, its actions become peculiar, and this at once becomes apparent to the other bees that are constantly on the lookout to harrass and rob, and thus puts the queenless colony on the defensive, and every stranger is at once attacked and killed. Under such circumstances the newly-introduced queen, if caged or protected in some way, is closely watched by the suspicious workers, and woe be to her if she emerges from her cage under such circumstances!

The most popular and successful way thus far is, to cage the new queen for some time after the old one is removed. This caging may be done in different ways, and the liberation of the queen may be done either by the bees or the bee-keeper, yet, in any event, the colony is disorganized, and the risks are great, to say nothing of the time lost in egg-laying, while the colony is thus queenless.

After losing many valuable queens, for some of which I paid big prices, in several instances I remember, I lost about half the bees. In these cases it seems that the colony became divided, and "civil war" ensued; a part of the bees adhering and protecting the new queen, while the rest were bent on her destruction. Close observation and various experiments led me to the discovery of a plan that is altogether new, and leaves the colony in its normal condition all along. This plan is sure and easily done under the immediate observation of the apiarist, and without loss of time to the colony in egg-production.

HOW TO INTRODUCE QUEENS.

Near the close of the day, when there is no danger of robbers, subdue the colony with smoke, find the old queen and remove her. Have a large platform or blanket in front of the hive. Remove every comb with the bees adhering. As the last frame is taken out, shake the bees from it on the platform near the entrance, and replace the frame. Now take the second frame and shake the bees from it some distance from the entrance on the previously prepared platform; when the bees are all off, put the comb in its place in the hive, and treat the third and fourth frames in the same way, shaking the bees about three feet from the entrance.

This shaking from the combs completely subdues and mixes up the bees, and causes them to exhale the peculiar scent that bees do when shaken from a limb in swarming-time in front of a hive.

When all the frames have been shaken and replaced in the hive, drop the new queen at least two feet from the entrance, and she will at once move on with the marching legions toward the entrance, and in thus mingling with the mass she at once becomes impregnated with the peculiar odor of the colony, and becomes one of them; and by her queenly sound and motions among the bees, she is at once recognized as the mother-bee, and enters the hive joyously with the rest, and at once proceeds to her work of egg-laying. A few whiffs of smoke among the moving mass will cause a more hasty entrance, and also add its scent to that of the bees.

By doing this late in the afternoon or evening, everything is quiet and in working order in the morning, and there will be no trouble from other bees. I have introduced quite a number of queens in this way without a single failure.

Lavansville, ♀ Pa.

For the American Bee Journal.

Western Fair at London, Ont.

WM. H. WESTON.

The exhibit of bees, honey, and apiarian supplies at the Western Fair, held at London, Ont., was not as large as usual, but it was as good as could have been expected, considering the season.

The Western Fair Board have this year expended in the erection of a honey hall and fixtures, over $2,000. When we compare this outlay with the amount given in prizes in 1883 ($11), we cannot but feel satisfied that the present Board of Management are far more liberal-minded than their predecessors, and also that they must acknowledge the great importance of bee-culture, as it is practiced now.

The exhibit of honey was not nearly as large, but what was shown was very fine honey.

Mr. D. Chalmers showed a new idea in a three-sided hive. The hive consists of a number of cases, and between the frames of each there is a tin-rest to prevent them from sagging. The hive is also invertible, and the working is quite different from any heretofore shown.

Mr. Holtermann, representing E. L. Gould & Co., had a very fine display of apiarian supplies, including a solar wax-extractor. Mr. E. Robinson had a very fine display of extracted honey; Mr. Coleman showed comb honey, and sold it all the first day. He secured from 178 colonies, spring count, 2,100 pounds of extracted honey, and 1,600 pounds of comb honey during the season.

Mr. R. H. Smith showed some very handsome bees as well as honey and supplies. Mr. J. W. Whealy had a very nice exhibit of comb honey, as well as extracted. His bees gathered 150 pounds of extracted honey, as well as 300 pounds of comb honey; he had 33 colonies, spring count. Mrs. John Rudd had a very nice exhibit of honey and apiarian supplies.

The prizes were pretty evenly divided, Mrs. Rudd securing the "lion's share."

The taste for honey is growing rapidly in this section of the country, if one could judge by the way samples on a stick disappeared. One of the exhibitors remarked that during the Fair there was over 1,500 pounds sold in that way, realizing more than 20 cents per pound, as some of the sections of honey did not weigh a pound, but sold as readily when cut up into quarters, and sold at 5 cents each.

London, Ont.

Vick's Magazine.

A Look into a Bee-Hive.

DR. C. C. MILLER.

THE TIMID BEE AWAY FROM HOME.

"Oh, Uncle Charlie! here's a bee on the window. It will sting us to death."

"My dear Grace," said Uncle Charlie, as he quietly picked the bee off the window in such a way it could not sting him, and put it out of the door, "the poor bee is more scared than you, and is only too glad to get away. Let me tell you a fact that may hereafter save you some nervous anxiety. No bee will ever sting you away from the immediate neighborhood of its hive, unless you pinch it. Come out with me, and perhaps I can prove it to you." By this time Grace's two brothers, Ralph and Daniel, who were also on a visit to their Uncle's, became interested, and went along to see what was to be learned. They did not need to go far to find flowers with bees working on them. Uncle Charlie slowly placed his hand over a bee which was busily engaged upon a flower, and closing the fingers lightly upon it, held the bee a prisoner. Grace looked on with alarm, while Ralph, who was a quiet, thoughtful boy, asked:

"Why doesn't it sting you, Uncle?"

"Because," replied his Uncle, "it is held as if in a box, and is only intent on getting out. See, wherever I open a little crack, it tries to push its head through. Now I'll free it," and out came the bee and began circling about. A look of distress on Grace's face made her Uncle say: "Don't be in the least alarmed; you couldn't induce that bee to sting one of us short of catching it and pinching it."

Just then a vigorous "zip" from little Daniel was heard, and that young gentleman was making lively motions with his right hand, and looking very red in the face. Directly, the remark, "It stung me," came out with a jerk. Grace's sympathies were thoroughly aroused, and she began eagerly asking what could be done for it.

Uncle Charlie said the main thing was to take out the sting, and he immediately scraped off the sting with his finger nail, saying, "Never pull out the sting with your thumb and finger, for the poison bag is always left with the sting, and pulling it out in that way squeezes more poison into the wound."

Upon inquiry, it was found that Daniel had been experimenting on his own account, and had caught a bee on the flowers. Said he, "I didn't think it would sting me, it didn't sting Uncle."

"Yes," said Uncle Charlie, "but you didn't make a little box of your hand so as not to pinch it, as I did."

"Perhaps," said Uncle Charlie, "you would like to see the inside of a hive." So he got for each a bee-veil, made like a bag, open at each end, to slip on over the hat. "Now," said he, "no bee can sting you, and it is a curious fact that even if a bee should get inside your veil, it will not sting you, but spend all its energies trying to get out. This instrument in my hand is called a smoker, and you see when I puff a little smoke on the bees they scramble out of the way. It seems to frighten them, so they will not sting. Now I will lift out one of the frames of comb."

HONEY-COMB AND EGGS.

"How black it is," said Daniel. "I thought honey-comb was white."

"Yes," said his Uncle, "what you have seen on the table is very white, and so was this when first made, but as the bees travel over it year after year it becomes very black. There are just twenty-five of these cells to the square inch, or fifty counting both sides of the comb. This is worker comb, and the eggs laid in these cells, under ordinary circumstances, will hatch out worker bees.

If, however, the colony becomes queenless, the bees may select the occupant of any worker-cell, and give it such food and care that it will produce a queen. Look in the bottom of these cells carefully, and you will see eggs. They are not as thick as a common pin, and three or four times as long as their thickness. It takes about three days for an egg to hatch, and in adjoining cells you will see white grubs coiled up in the bottom of the cell. Some of them have just hatched out, and you can hardly see them with the naked eye. Others fill up the cell pretty well, and were hatched about a week ago. Then you can see them of all intermediate sizes.

After the grub hatches out of the egg, it is fed by the workers for about six or seven days, when they seal it over. You see a great many cells thus sealed over, and after being sealed over the grub, or larva, as it is properly called, spins a cocoon about itself, and in twenty-one days from the time the egg was laid, the young bee gnaws its way out of its cell, a perfect-worker. A drone is hatched in twenty-four days from the laying of the egg, and a queen in sixteen."

"Oh, see the big bees!" said Daniel, pointing quickly with his finger, almost touching them.

"Be careful, my boy," said his Uncle, "or you may get another sting."

Daniel's hands were instantly in his pockets.

"One of the first things to be learned in handling bees," continued his Uncle "is to make no rapid movement. Be gentle with them. Those big bees are drones, and have no stings. On this next frame we find a small patch of drone comb. You see the cells look much larger. They measure 16 to the square inch, or 32 on both sides. But we haven't seen the most important member of the community yet. Ah! here she is," as he lifted out another frame.

THE QUEEN-BEE.

"She is longer than the workers," observed Ralph, "but her wings look short."

"Does she control all the rest?" asked Grace.

"Very far from it," was the reply; "instead of being called queen, she should be called mother-bee, for she does nothing in the world but lay eggs. How many do you think she can lay in 24 hours? Guess big."

"Twenty," said Grace.

"Fifty," said Ralph.

"Five hundred," said Daniel, and was laughed at by the others.

"None of you have guessed enough," said their Uncle. "At her best she can lay 3,000 eggs in 24 hours.

ROBBER BEES.

"Oh, see what a shiny black bee," said little Daniel, making an effort to point with his elbow, his hands being in his pockets.

"Yes," said Uncle Charlie, "that is a robber bee. See how quick it darts away when another bee comes near it. There! one bee was too quick for it, and has caught it by the leg. See how it struggles to get free. Ah! it has broken loose and is gone. It is probably an old hand at the business, and its shiny appearance is due to the fact that the feathers or down have been rubbed off of its body, possibly by crowding through narrow places in its efforts to steal." "Does the robber bee belong to this hive?" asked Ralph.

"Oh, no, it belongs to some other colony, possibly this one standing next, possibly it came from some hive a mile or two away."

"How can the bees tell it from their own bees?" said Grace.

"I don't know," said her Uncle, "possibly by the smell. At any rate the bees seem to have little difficulty in distinguishing a stranger. I have known 2 colonies to be put into the same hive together, and every bee of the last colony to be stung to death by the others. But I want you to notice whether there is any difference in the color of the bees."

HYBRID BEES.

"Yes, sir," said Daniel, "some have more yellow color on them than others."

"Yes, a colony of pure Italian bees will have all workers with the first three rings or segments of the abdomen yellow. The common black bee has no yellow. This colony is a mixture of black and Italian. They are called hybrids. Not many years ago there were no Italians in this country, although now there are a great many, and Italians and hybrids are considered superior, generally, as honey gatherers. Great pains are taken to have good stock, and quite a number of men make their principal business the rearing of queens to sell. Thousands of queens are sent every year, through the mails, in little cages, with a few worker bees to accompany them. Importing queens from Italy is also quite a business. Yonder hive contains a queen which was hatched under the sunny skies of Italy. I paid six dollars for her."

"How can bees tell their own hives?" asked Ralph. "The hives all look alike."

BEES KNOWING THEIR HOMES.

"I'll answer you presently," said his Uncle, as he finished closing up the hive they had been inspecting. Then he went along some distance, looking at the different hives, till he came to one where he said, "Now watch the bees flying in front of this hive."

"Why," said Grace, "there are more bees than at the other hives, and they just keep flying in sort of circles, and not darting in and out as they do at the other hives."

"I don't know," said her Uncle, "that there are any more of them, but the way they fly about makes them look so. Just fix your eye upon one bee as it starts out of the hive. Instead of darting, like the bees of other hives, straight out of the hive as if the whole family were sick, and it were sent for the doctor, it comes bustling out of the entrance, shaking itself and running about on the alighting-board with a very important air, as if to say, 'I tell you, it just needs me about to have things go right,' and then when it takes wing it flies slowly a very little way from the entrance going in circles a little further and further away, keeping its head constantly turned toward the hive. These are young bees having a play spell, and they fly thus carefully with their heads toward the hive to mark their location, apparently trying to fix in their little heads the position of surrounding objects. Ever after, they seem to fly back to that same location on returning home, and if their hive is moved away, only a few feet, they will never find it, but fly around and around the site of their old home, in a dazed sort of way, perhaps finally entering one of the nearest hives, where they are likely to be kindly received, providing they enter well laden."

Marengo,♂ Ills.

The Honey Resources of Iowa.

EUGENE SECOR.

If one takes the time to observe and the trouble to enumerate them, he will be astonished at the almost endless variety of honey-yielding plants within the State. It would require a skilled botanist to name them all.

The All-wise Father has provided nearly all plants and trees with either honey or pollen, to attract the insect world. He spreads a continual feast for the bee, that the important object, perfect fertilization, may be the more certainly attained. The bee that slips from flower to flower, rollicking in the golden dust among the new-born anthers, playing hide-and-seek in the opening corollas, is performing a work of untold value in the wise economy of nature. The honey secreted by the blossom is for the purpose of inviting cross-fertilization, and to prevent in-and-in breeding.

If no insect is there to utilize the drop of nectar, it is evaporated and scattered to the four winds of heaven. No one is richer for the ungathered sweets, and no one is the poorer whose fields are searched by the tireless little worker, whose instincts lead it to garner the evanescent riches, which of a truth, "take to themselves wings and fly away."

From the earliest Easter flower that peeps out of the snow on some sunny hillside, to the last fall-flower in autumn, there is a continual succession of honey-bearing plants, whose wealth of nectar ought to be utilized as one of the sure resources of this grand State.

California may have occasionally astonished us by her magnificent honey crop, but in Iowa, where "the early and the latter rains" are not only prosmised, but sent, we are generally confident of a reasonable surplus. The pastures and roadsides are covered with white clover which yields the finest honey in the world. The rivers and lakes are generally skirted by basswood timber, one of the best honey-producing trees in America, yielding largely a nectar that is prized for its beautiful amber color and aromatic flavor.

Every fence corner and neglected field is planted by the hand of Nature, as though she were trying in some way to counteract man's shiftlessness, by making the earth bring forth abundantly some of the good things of life. Goldenrod, artichokes, thistles, Spanish-needles, and even burdocks are made to contribute to the general good by furnishing delicious hydromel for the "busy bee."

We here enumerate a list of some of the principal honey-plants in Iowa, the names of which are familiar to everybody: Willow, all varieties, maple, all varieties, basswood, elm, oak, wild black cherry, choke cherry, poplar, sumac, wild crab tree, wild plum, honey locust, all fruit trees, all the small fruits, bush honeysuckle (wild), artichokes, thistles, wild morning-glory, sun-flower, pumpkins, squashes, melons, dandelion, white clover, Alsike clover, red clover (2d crop), milkweed, catnip, motherwort, mustard, borage, thoroughwort, melilot, buckwheat, sweet corn, heart's-ease, goldenrod, asters, Spanish-needle, burdocks, and nettles.

There are still others, not so well known, that are frequented by the bees, proving that they yield nectar or pollen in abundance.

Forest City, ♁ Iowa.

British Bee Journal.

The Uses of Beeswax.

J. DENNLER.

Beeswax, on account of its lighting powers, is used for the manufacture of candles and wax-tapers. Besides, on account of its tenacity and ductility, firmness and difficulty of melting, it is indispensable for the great industry of making wax figures and for modeling. But also in house-keeping wax renders us important services. In the following we have some of these remedies and recipes:

SEWING WAX.—The beeswax is made into little round balls to give more stiffness and smoothness to the thread for sewing.

WOOD WAX.—Melt together one part of yellow wax, two parts of rosin, one part of turpentine, and some lard. Let it get slightly cold, and roll out the mass on a slab into sticks. This is the warm-melting wood wax; at the present time the cold melting wood wax, recommended by Dr. Lucas, is often used, which is prepared from rosin and spirit.

PRIMITIVE WAX.—Melt two parts of wax, and stir into it, after it is taken off the flire, one part of turpentine.

WAX POLISH.—Mix 200 grammes of potash and 200 grammes of water, heat to a boiling point, and gradually, after repeated stirring, 400 grammes of yellow wax. After this has been boiled again, pour in 900 grammes of water, and heat it until a milky fluid results. This is useful for polishing furniture and floors.

WATER-PROOF PACKING-PAPER.—Take 24 parts of blue soap and 4 parts of white soap, 15 parts of wax, and boil it with 120 parts of water. Dip the packing-paper into it, and let it soak well, and hang it up on cords to dry.

LEATHER GREASE.—For the preparation of this, mix 1½ kilogrammes of pure yellow wax in 1½ kilogrammes of turpentine oil, 1½ kilogrammes of castor oil, 12½ kilogrammes of linseed oil, and 1½ kilogrammes of tar, and let the whole be thoroughly well mixed. The leather, by repeated applications (some six months altogether), is protected by this grease against the influence of air, heat, perspiration, or other moisture.

WAX OINTMENT FOR MAKING BOOTS WATER-PROOF—Is prepared by melting together 6½ parts of yellow wax, 26½ parts of mutton tallow, 6½ parts of thick turpentine, 6½ parts of olive oil, and 13 parts of lard, and stirring into this 5 parts of well-mixed lampblack, and the mass is then poured into little wooden boxes. The wax is made warm, and is rubbed in with the fingers, by means of which the hard leather is softened, and becomes perfectly water-proof.

MEANS FOR REMOVING THE CRACKS IN HORSES' HOOFS.—Wax and honey in equal parts are well melted together over a slow fire, and thoroughly well mixed. It is used after this manner: The hoof having been thoroughly cleansed with tepid water the above mixture is well rubbed in with a brush. After several applications the fissures and cracks disappear, and the hoof gets an advantageous softness.

APPLICATION OF WAX IN MEDICINE.

REMEDIES FOR COUGHS, EXPECTORATION, ERYSIPELAS OF THE HEAD.—Breathe the vapor of wax which has been melted on a hot iron or a brazier.

HEALING SALVE.—Honey, oil, and wax melted together into a salve hastens the healing of old wounds and fistulas.

MARIGOLD FLOWER PLASTER FOR WOUNDS.—Out of marigold flowers a plaster can be made by bruising the flowers and the stalks, and mixing it with as much lard as will cover them, letting it boil over a moderate fire for an hour, and it is then squeezed through a cloth. The stuff that is pressed out is put over the fire, and as much yellow wax added as will make it of the consistency of a plaster. If less wax is used, marigold flower salve is obtained. Both preparations are useful in all kinds of wounds.

A REMEDY FOR DIARRHEA.—In France the following remedy is found of frequent use: Scoop out the core of a quince, fill it with hot wax, let it roast for a long time by the fire, and eat it night and morning for three days consecutively.

SALVE FOR WOUNDS LEFT AFTER REMOVING WARTS.—Prepare a salve of white wax and fresh unsalted butter in equal parts, and mix a little white wine with it.

SALVE FOR BURNS.—Wax and linseed oil give an excellent plaster for burns. Stahl's burn-salve is made of equal parts of butter and yellow wax.

CORN PLASTER.—For corns a good plaster is made of wax, tallow, and some verdigris.

TOOTH-STOPPING.—The tooth-stopping is prepared by melting together 3 parts of pure white wax with 3½ parts of mastic, and a few drops of oil of peppermint, and making into the pill on a marble slab. The hollow teeth are filled with this so that the food may not lodge in them, and irritate the nerves of the teeth.

WAX SALVE FOR SKIN DISEASES.—Five parts of white wax, 5 parts of spermaceti, 5 parts of sweet almond oil, are melted together in an enameled vessel, and are poured out into little paper boxes, and when cold are cut up into little slabs.

COSMETIC SPECIALTIES.

GLYCERINE WAX BALSAM.—Two parts of white wax, 2 parts of spermaceti, 8 parts of sweet almond oil, 4 parts of glycerine, ⅛ part of attar of roses, are carefully melted together in an enameled vessel before a slow fire, stirred till it is cold, and put into glass vessels.

CREME CELESTE.—One and one-half parts of white wax, 3 parts of spermaceti, 3 parts of sweet almond oil, are melted together in a porcelain dish over a water bath, and after it is cold, 2 parts of rose water are added, with continual stirring.

COLD CREAM—Is used to keep the skin delicate and soft. It is prepared by rubbing together in a water bath 1 part of white wax, 2 parts of spermaceti, 8 parts of sweet almond oil, and 5 parts of rose water.

COSMETIQUE.—Melt in a porcelain dish over a water bath 500 grammes of yellow wax, with 125 grammes of white soap, take it from the fire, let it get cold, and mix in it before the mass has set 5 grammes of bergamot and 1 gramme of Peruvian balsam. It is rolled out into little sticks on a glass or marble slab, and these are covered with paper.

Enzheim, Germany.

For the American Bee Journal.

Bees without Food for 3 Months.

C. E. JONES.

The fact that bees can be kept for three months without food, must come out, and I will say that it can be done. I do not claim that I have discovered this myself, but I claim priority in getting it before the public.

Last winter, at the bee-keepers' convention at Columbus, O., I told Mr. Ernest Root that I had kept honey-bees in the dormant state three months. I mean by this, that they were dead, to all appearance, and revived when exposed to the sun. I have written to others about it, but have had no reply.

When I told Mr. Aaron Benedict of this matter, at the State Fair this fall, he said that he believed that I was honest, but he could not believe the statement which I made, but the next morning he remarked to another bee-man, that he could not sleep that night on account of thinking about Jones' bee-story. He said that there might be something in it, or at least he should try it.

I first learned this from an old bee-man in Missouri over 15 years ago; and 12 years ago I kept bees three months in the dormant state, and they came out all right. I did not take a bee-paper then, and I did not think much about it. I am very much surprised that the bee-fraternity had not discovered it sooner.

Ostrander,⊙ O., Oct. 14, 1887.

[Perhaps the Rev. W. F. Clarke will have something to write on this matter, as it touches his theory.—Ed.]

Farmers' Home Journal.

Hints to Beginners—Handling Bees.

G. W. DEMAREE.

The art of handling, or in bee parlance manipulating bees, is looked upon by the uninitiated as a great mystery—a species of jugglery; but such is not the case. A beneficent Creator has given man dominion over the creatures which he has given him for his support and profit. And it is the privilege and duty of man to study their habits and capabilities, that he may control and care for them intelligently, both with profit and pleasure to himself.

The farmer has certain methods by which he manages and controls his live stock—methods which conform to their habits and natural history. In the same way the bee-man manipulates his bees, using methods conformable to their habits.

FINDING CONDITION OF COLONIES.

With a good smoker I can open any well made, movable-frame hive (no matter how many or what kind of bees it contains), which has nice straight combs, and lift out the combs one at a time with the bees clustering on them, and make the bees move about with the point of my finger, while I look for the queen or examine for eggs and larvæ in the cells. In this way we may know when our bees are about to swarm by looking for queen-cells, which ordinarily appear before a swarm issues. And if we are rearing queens from fine stock, and feel interested about them, we may know just how matters are progressing by lifting out the frame on which the queen-cells are built from time to time, and know the very hour that the young princess cuts her way out of the royal cell.

It will be seen that by means of easy access to the interior of the bee-hive, we may study the habits and natural history of the bee at our leisure, and if we are apt scholars we may become masters in the science of bee-keeping.

TIME OF REARING YOUNG BEES.

If you wish to ascertain the length of time it requires to produce a queen from the egg, you may remove the queen and all the unsealed brood from a hive, thereby leaving the bees hopelessly queenless; then give them a frame containing eggs from your best queen, and you will find that the eggs will hatch into minute white worms, called larvæ, in just three days, and the bees will start queen-cells. At first the cells will resemble small acorn cups, but as the royal infants increase in size, the cells will be enlarged and drawn out in a downward direction, looking very much like a peanut, and in about five days after the cells are started, they will be sealed over, and the royal larvæ will pass into the chrysalis state, weaving about herself an exceedingly delicate shroud, and in this state she is metamorphosed into the perfect *imago*, and cuts her way out of the cell on the sixteenth day from the day the egg was laid.

Now, if we watch her movements, she may be seen moving about among the bees for three or four days, when she will take a gay trip (sometimes several of them) into the air to meet the drones, and in a few more days she will commence laying eggs. The queen honey-bee ordinarily commences to lay at nine or ten days old.

Now let us trace the history of the worker-bee. If you take a note of the time the first eggs are laid you will find that they will hatch into minute larvæ in three days, and in about seven days more the larvæ is capped over (this we call sealed brood), and on the twenty-first day from the day the eggs were laid the worker-bees will begin to cut the caps of the cells, and "hatch out" perfectly-developed worker bees.

The drones are produced in the same manner as the worker bees, except that they are ordinarily reared and nursed in drone-cells, the cappings of which are much more convexed than that of the worker-cells, and thereby may be easily distinguished from the latter. It requires twenty-three days to produce the drone from the bee.

AVERAGE LIFE OF BEES.

The average life of the queen is about three years, though they will sometimes live four, and in extraordinary cases five years. This we ascertain by clipping their wings so that we may always know them.

To ascertain the average life of the worker bee is an easy matter since the importation of the (yellow) Italian bees to this country. If you remove the queen from a colony of black or dark colored bees, and introduce an Italian queen in her stead you will find that in less than ninety days (if in the summer season) every black bee will have disappeared, and the yellow Italians will have taken their place, indicating that the average life of the worker bee in the working season is about forty-five days. But if you introduce an Italian queen in the month of September, there will be black bees living till the following April or May, indicating that the average life of the worker bee in a state of rest, as in the winter season, is perhaps five months, though some of them may live to be six or seven months old. With these facts before us, we can realize the importance of providing every colony with the best queens that can be obtained, if we would have strong colonies.

Christiansburg,♂ Ky.

For the American Bee Journal.

Keeping Bees near a River, etc.

JAMES DEVINE.

In order to keep bees at a profit, they should be located near a river, and I will give the reason why, viz: The 600 colonies of bees which I have in charge, are in three different apiaries, located from 2 to 4 miles apart. Two of these apiaries are located near a river, and do quite well, while the third is not located near a river, and the bees do poorly.

The bees in this locality are not doing much now, as the honey season is about over. I am still taking off honey, but I will get through in about one week; after finishing up, I will have taken off somewhere between 50,000 to 52,000 sections of honey. This part of the State, in the summer time, is warm and dry, and in order to raise crops, irrigation has to be resorted to, which causes alfalfa to grow abundantly. This gives good pasturage for bees, and makes nice-looking honey. The bees close the honey season on sun-flowers, but the honey thus gathered is dark.

Bakersfield,♀ Calif., Oct. 2, 1887.

Prairie Farmer.

Bees Do Not Make Honey.

MRS. L. HARRISON.

Many have a mistaken idea in reference to honey. Some say: "I thought honey was honey, all alike; but now I see it under different brands — clover, linden, goldenrod, buckwheat, etc., etc. If bees make honey, why is it not all alike?" Bees make honey! Right there is the mistake, and the solution of this problem. Bees do *not* make honey, and never did; not even that found in Samson's time, in the carcass of the lion was *made* by bees. Neither do bee-keepers make it. It is a vegetable sweet, generated in Nature's great laboratory, which is located principally in the corollas of flowers, but not there altogether.

EVAPORATING HONEY AT NIGHT.

When bees are gathering nectar very rapidly, it is put into the cells quite thin, but is never sealed up in this condition. These original canners know better than to do this, and as they cannot gather it during the night, they spend that time in boiling down what has been collected during the day. Evaporation may commence in the honey-sac, as the bee flits from flower to flower, and on the final trip to the hive. Naturalists claim to have noticed a fine spray emitted from their bodies, where many are flying home laden to their hives.

Bees hum very loudly at night, during a large yield of honey, which is caused by their fanning with their wings while they work the honey back-and-forth on their proboscis, in much the same manner as a confectioner does his candy.

Some claim that a drop of formic acid, which causes the sting in the bee, is put into the honey to prevent fermentation before the final sealing up; but I have never seen them at it, and very much doubt if any one else has. The sealing of honey is air-tight, while that of the brood, on the contrary, is porous.

BEES WILL NOT BE FORCED.

If the bee-keepers could make honey as some persons believe they can, they might do a "land-office business," as nature has failed to produce any this season, except in some favored localities. They might use their idle capital, which is invested in sections, foundation, etc. Hives are full and running over with worker bees, why not set them to work filling foundation with sugar syrup? This has been tried and found wanting; bees will carry down syrup to support themselves and families, and then flatly tell their owners, if they want any more stored, they will have to look elsewhere for workers to do it, for it is not their nature to be fed, but to help themselves from the fields.

Peoria, Ills.

The Coming Convention—Suggestions.

On page 684 may be found a programme of the topics to be discussed at the coming union cenvention in Chicago, Ills., from Nov. 16 to 18, 1887. The following from Dr. C. C. Miller, in *Gleanings*, in reference to the convention, contains suggestions which are both wise and timely, and to them we invite attention:

I believe bee-conventions are increasing in popularity. Rightly conducted, there is no reason they should not. If I am not mistaken, in Germany they have a society, if not societies, with something like 500 members. Did any society in this country ever reach 200 members? Perhaps we have something to learn from our German brethren in this regard.

For many who attend the larger conventions, the attendant expense makes it important that everything should be planned to occupy the time in the most profitable manner, and it appears to me quite worth while to spend considerable time in advance in talking the matter over. As one of the officers of the North American society, I am quite anxious that our next meeting should be successful; and as the same things may apply to other societies, it is well to talk out loud.

Something has been said already about having the North American a representative society, but no definite action has been taken in that direction as yet. Perhaps it would be a good idea for those who have thought most about this matter, to tell us specifically just what should be done.

Going back to general principles, a mistake is often made in appointing the time—that is, the day of the week. If members are expected from a distance, and a two-days' session is to be held, Tuesday and Wednesday are by no means as good days as are Wednesday and Thursday, nor even as Thursday and Friday. If the first day is Tuesday, it is difficult for some to be there on time; and if it closes on Friday it is also difficult for them to get home in time; but it seems better, if there must be any break in numbers, that it should be at the last end rather than at the first. Besides, if a member is present, and much interested, he will perhaps make more effort to remain than he would to get there on time.

One of the bad things about most meetings that I have ever attended is the being confined so many hours in a room with perhaps little or no ventilation, the attention kept continuously fixed for three or more hours at a stretch. It is a little strange that a set of men will get together and warmly discuss the kind of ventilation that is best for bees, and forget that ventilation is just as necessary for the human family. If it is difficult to properly ventilate the room, the windows can at least be opened during a 15-minutes' recess, when the members can be moving about without danger of taking cold. Neither is this recess a waste of time. I believe more can be accomplished in 1¼ hours after recess in the forenoon or afternoon than in 1½ hours without a recess. I know I am rapping my own knuckles in saying this, but that does not alter the facts.

At what time should the election of officers take place? For one, I do not know. There seems objections to electing officers for the North American before the place of next meeting is decided; because, if it should be at the extreme South or North, it might not be best to elect officers from the opposite extreme who might not be at the next meeting.

It has been customary for the newly elected officers to assume control during the latter half of the convention. There may be some good reasons for this, but there are some against it. A set of officers ought to be able to make more uniform work to act continuously through the convention than to begin at the middle of one convention and stop at the middle of the next. In other words, a change of officers during a convention makes more or less of a break. Considering that I am an officer in the North American, my suggestion may not seem a very modest one; but, in spite of the immodesty, the principle looks to me correct. I am quite willing, however, to let the old custom continue during the next convention.

On one point I feel a little hesitancy about speaking, but I believe I ought. It is quite common for a number of persons to attend the sessions of the conventions and pay no membership fees. It is, in general, those from no great distance. The man who has been to the expense of coming 100 or 1,000 miles, and perhaps brings more to the convention than he takes away, pays his full share of all expenses, while others who have all the benefit of the discussions, and are at little or no expense in coming or going, absorb the whole with not even a "thank you." Bee-keepers are such a liberal set that their conventions have been made even more free than political conventions. Is it right? If you will ask the Secretary or Treasurer at any of our large meetings, you may be surprised to find how many dead-heads are present. I do not know just what is the best thing to do about it, but I think in some way every man should pay his fee on his first arrival.

Mr. Root, editor of *Gleanings*, adds the following note:

Thanks, friend M. I heartily endorse every point you make; and most especially do I endorse that matter of ventilating the room we meet in. When the room is poorly ventilated I get dull and blue, and am very apt to make up my mind that I will not come next time; whereas, if I can be near an open window I often get real happy, and wonder why it is I ever stayed away from a single national convention. On some accounts I rather like our customary way of changing officers in the middle of the meeting. We are enabled to get somewhat acquainted with new comers. This matter of each one paying his share of expenses is a difficult thing to manage, and I presume it always will be. Even in our churches it is customary for a limited number of the members to bear the heaviest burdens, and they are often those not very well off in this world's goods either.

We heartily endorse the remarks of Bro. Root upon the ventilation of the hall. We have suffered much from being compelled to breathe impure air. Mrs. L. Harrison, some four years ago, wrote a scathing rebuke on this subject, as well as about the *cruelty* of not allowing a recess. Now, as Dr. Miller will have full charge of the coming convention, we shall expect him to remedy these defects.

As to making the North American Bee-Keepers' Society a representative body, we are in full accord with the suggestions made by Dr. Miller. By referring to the list of topics as given in the programme on page 684, it will be discovered that one of the subjects enumerated is: "The Objects and Methods of a thorough Organization of the Bee-Keepers of America."

As that topic is committed to the editor of the AMERICAN BEE JOURNAL, he will endeavor to present something practical and timely; and would suggest that this topic be presented early enough to allow of perfecting the organization if it is adopted by the convention.

As remarked by Dr. Miller, "we have something to learn from our German brethren" in regard to organization and large conventions. We also have much to learn from our British brethren, as we shall show hereafter, and we ought not to be slow to appreciate our position and the possibilities placed before us.

We think that the installation of officers should occur at the last session; as it does in many other bodies. Then the new officers are not taken unprepared to assume unexpected responsibilities. To change Secretary in the middle of the meeting is exceedingly detrimental, and should never be tolerated. The report is either spoiled by a conglomeration, or else is never made in any creditable manner.

We have often heard it stated that none but fools will exchange horses while crossing a stream, and it is equally unwise, we think, to exchange officers while conducting a convention.—Ed.]

Western Plowman.

Experiments, Honey Markets, etc.

C. H. DIBBERN.

October is the last month in which much work can be done in the apiary. If the bees have not yet been put in proper condition for winter, it should be attended to at once. The honey season is now over, and all honey, and all surplus arrangements should be taken off and stored away. If any colonies are still short of stores, they should be fed till they contain at least twenty pounds of honey or sugar syrup. If there are any weak or queenless colonies now, they had better be doubled up with others, as it will not pay to bother with them and try to nurse them through the coming winter.

SOME EXPERIMENTS.

I had planned a number of experiments for this season, but owing to the failure of swarming and a loss of the honey crop, the results obtained were not conclusive. For instance, I was experimenting with a non-swarmer. It worked like a charm, but as no other colonies swarmed, it was not very satisfactory.

Another was to try the certainty of preventing swarming, in the new invertible hives, by inverting once a week during swarming time, and of course this proved equally futile. I also wished to give my new invertible hive a thorough trial during a good honey year, so I could carefully note all its advantages, and that has also proved disappointing. I have made 10 colonies by forced swarming, and put them in my new hives, and by feeding some, I now have them in fine condition.

Another point I wished to test more fully, and that is the relative value of the different races of bees. I now have blacks, browns, Germans, Italians, Albinos, and Carniolan bees. I have watched them with considerable interest, and so far I must give the preference to the Albinos. I have seen these bees at work early in the morning, long before others, and again in the evening after others had stopped. I must say, however, I have not had the colonies long enough to give them a fair test. The colonies containing Carniolan queens, are now becoming quite populous, and I must say I am much pleased with them. If they will make whiter combs than any others, and dispense with the use of propolis, it is certainly a big point in their favor.

BEE-KEEPING IN SEVERAL STATES.

I have just returned from a trip through Iowa, North Missouri, and into Kansas and Nebraska. As I am a kind of bee-keeper by nature, I am always alert on everything connected with the pursuit. Below Muscatine I saw a few small apiaries that appeared to be run on modern principles; but aside from these, I saw only a few scattered hives, and mostly old patterns. I presume, however, that there were some good apiaries away from the railroad, as in some places I could see great numbers of bees, as they came sailing over the train, going to some buckwheat field or flower-covered creek-bottom.

The country through Southern Iowa seemed to have suffered the most from the drouth, and in this section bees will certainly have to be fed to get them in condition for winter. In North Missouri the prospects were much better. Some of the bottom lands, especially along the different branches of the Grand river, were immense, being covered with a sea of yellow bloom. How I did wish I could have my apiary there for a few weeks, to let the bees loose and revel over these rich bottoms. Those so fortunate as to have bees so favorably situated, will certainly have some surplus honey.

In Kansas and Nebraska the prospects for a fall crop also seemed quite good. Everywhere along the railroads and creek-bottoms were masses of rich honey-producing flowers. Those most common were the golden-rod, asters, heart's-ease, and the many wild fall flowers. I noticed a great many wild sunflowers, peculiar to the West, but I do not rank them very highly as honey-producers. Here and there I noticed patches of sweet clover, which made me feel like meeting an old friend, and I had a suspicion that some bee-keeper was not far off. Some of the places in Kansas where the train stopped, I noticed many bees at work on the heart's-ease along the track, and bees seemed to be doing well.

KEEPING HONEY FROM FLOWERS SEPARATE.

It has been asserted that bees will visit only one kind of flower on the same trip from the hive. I recently watched some bees at work on sweet clover and heart's-ease that was about equally intermixed, and I noticed a number of bees flying from one to the other, and again back to the first kind of bloom. Like many other general rules, it has its exceptions.

Milan,⊶ Ills.

Local Convention Directory.

1887. *Time and place of Meeting.*

Oct. 28.—Darke County, at Arcanum, O.
J. A. Roe, Sec., Union City, Ind.

Nov. 16.—Western, at Kansas City, Mo.
J. A. Nelson, Sec., Muncie, Kans.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Rogersville, Mich.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Comparing Samples of Honey.—Joshua Bull, Seymour,⊶ Wis., on Oct. 17, 1887, writes:

Would it not stimulate an interest in the approaching bee-keepers' convention to be held in Chicago on Nov. 16, 17 and 18, 1887, if the American Bee Journal should invite bee-keepers, when coming to that convention from different parts of the United States and Canada, to bring along with them samples of their honey, in order to compare the quality and appearance thereof, to demonstrate whether there is really much difference in honey gathered from the same kind of blossoms in different localities? We also might gather thereby some valuable ideas in regard to putting up honey, and preparing it for market, etc.

[Yes; let each one bring such along as may show their methods, and then by comparison some may get better ideas and act accordingly.—Ed.]

Preparing Bees for Winter.—Rev. Stephen Roese, Maiden Rock,⊶ Wis., on Oct. 16, 1887, writes:

When extracting, nine weeks ago, I averaged the brood-chambers of my hives, giving them below full and good frames of honey. The upper stories are on almost all of the hives yet. A few days ago I drove several colonies down, took the frames out from above, and found the lower frames nearly empty of honey, and no young brood; besides, the bees are so cross, and many perished on account of the chilly weather, while I worked at them. What can I do under the circumstances? Will it answer to leave the upper stories on, letting them have the whole, and put them into the bee-house as they are now?

When the weather is mild, and I open a hive, the robber bees become so infuriated that night only can check them. On account of sickness, I have had to neglect my bees.

[We have had several warm days since your letter was written, and doubtless you have taken advantage of such to prepare them for winter. If not, and the weather is too cool, you can put them into the bee-house as they are, being careful that they have sufficient stores for winter use. —Ed.]

Propagating Asters.—J. G. Crawford, Pittsfield,+○ Ills., on Oct. 8, 1887, says:

I send you the bloom of a plant. Please give its name and tell how to propagate it. It blooms in September, and the bees are at work on it yet.

[It is one of the numerous family of asters. They grow spontaneously in many localities in the fall. Sow the seed in meadows or hedges. The plants will take care of themselves.—Ed.]

Bees Must be Fed, etc.—G. H. Ashby, Albion,+○ N. Y., on Oct. 17, 1887, says:

I have 71 colonies of bees, and had 60 last spring. I have had only 3 natural swarms. My bees gathered a little honey the first ten days of July, from basswood, but not a pound from clover, although there was a profusion of bloom. But we had cold nights, often reaching 52° in the morning. One-half the bees in this county must be fed, or they will starve before spring. The winter losses will be 50 per cent. among the fogies. Comb honey is selling at 20 cents per pound.

Asters as Honey-Plants.—Dr. R. B. Woodward, Somerset,⊙ O., on Oct. 14, 1887, writes as follows:

Will you please give the names of the flowers which I send? I plucked them off to-day. They grow along the roadside, streams, etc. All are from one to four feet in height. Bees are gathering honey from them yet. There are very many of them in this locality this year, and they have been in bloom and yielding honey for the past six weeks.

[They belong to the numerous family of asters, and are excellent for honey.—Ed.]

Great Willow-Herb or Fire-Weed.—J. E. Sargent, Whitehall,+○ Mich., on Oct. 12, 1887, writes:

I send a package containing a sample of honey extracted from the flower of a plant which I enclose with it. This plant grows on low ground the same as fire-weed. It begins to bloom early in July, and continues until the middle of September. The bees work on it all day with a relish, and it is a remarkably good honey-producer. I would like to ascertain not only the name of the plant, but also if it produces seed; and if it can be cultivated. It is only found as before stated, on low ground that has been burnt over. The bloom is of a pink color, and very much resembles the "Drummond phlox."

[This is the great willow-herb or fire-weed, *Epilabium Specatum*. Dr. Beal tells me that *Specatum* is the correct specific name, though both Gray and Wood give it as *E. augustifolium*, which name I gave in my Manual.

This is not only a magnificent bee-plant, but it is very beautiful, and what is more, though an autumn plant, the honey from it is very light colored, and of most excellent flavor. In the northern part of our Southern peninsula, this plant is a principal source of honey from July to September.

While this plant thrives on low land, it is also often found on quite high and well drained soil. It does produce seed, and each seed has a wing which often bears the seed far away from the parent plant. Thus these seeds are wafted into burnt fallows, and the plants spring up. Many a farmer erroneously supposes this to be spontaneous production. But it is from seed.

We also have another plant—a composite—which is also called fire-weed. This *Erechthites hieracifolia*. The flowers are dull, coarse, and not at all like the willow-herb. It is called fire-weed for the same reason.—A. J. Cook.]

Bees to Winter in a House.—Dayton H. Carter, Clayton,⊙Ind., on Oct. 19, 1887, writes as follows:

I would like to get from the subscribers of the Bee Journal a published reply to the following questions: 1. Will bees winter safely if put into an old house? 2. If so, what would be the proper way to prepare them for winter? 3. Would it do to put them into the house just as they stood upon the summer stands?

Packing Bees—Foul Brood.—S. Burton, Eureka,⊙ Ills., on Oct. 28, 1887, writes:

I had 14 colonies of bees last spring, which I had wintered on the summer stands packed with leaves over the brood-chamber, and with oat-straw around the hives under a shed. I had no swarms, but made one colony by division. My Italians have stored all the surplus honey that I have had, 7 colonies storing 300 pounds of comb honey in one-pound sections; but the 7 black colonies have no more honey than will winter them. I shall pack my bees in the same way this fall. I am afraid that I will lose my bees this winter, as one of my neighbors has had a siege of foul brood among his bees the past summer. Is there any danger of my bees having the disease by eating the honey from his bees?

[Only robber bees go to the hives of other colonies. If no robbing exists, and no diseased combs are exposed, there is but the smallest amount of danger.—Ed.]

Very Little Gain.—A. Sperling, Dewey,○+ Ills., on Oct. 17, 1887, says:

I had 34 colonies, spring count, and increased them to 44, 3 by natural swarming and 7 by division. I propose to pack and winter them on the summer stands. I took 500 pounds of comb honey, and 200 pounds of extracted honey, which they stored early last spring. Many of the colonies consumed nearly all of their stores during the drouth. I fed 450 pounds of honey and cane-sugar syrup to winter on; so there is very little gain.

Convention Notices.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

The following are the subjects for discussion, so far as has been determined upon:

Cost of the Production of Honey—

Controlling the Price of Honey—M. M. Baldridge, St. Charles, Ills.

Getting the Best Price for Honey—E. J. Oatman, Dundee, Ills.

Commission Men and the Honey Market—R. A. Burnett, Chicago, Ills.

Legislation for Bee-Keepers—Dr. C. C. Miller, Marengo, Ills.

Objects and Methods of a thorough Organization of the Bee-Keepers of America—Thomas G. Newman, Chicago, Ills.

Comb Foundation, its Manufacture and Use—C. P. Dadant, Hamilton, Ills.

Production of Extracted Honey for Table Use—T. F. Bingham, Abronia, Mich.

The Production of Comb Honey—

Production of Comb and Extracted Honey in the Same Apiary—J. A. Green, Dayton, Ill.

Out Apiaries—D. A. Jones, Beeton, Ont.

Foul Brood, How Shall we Treat It?—A. I. Root, Medina, Ohio.

Wintering Bees in the Northern States—R. L. Taylor, Lapeer, Mich.

Bee-Keeping alone, or with Other Pursuits; if the latter, in connection with what?—Eugene Secor, Forest City, Iowa.

Legs of the Bee—Prof. A. J. Cook, Agricultural College, Mich.

What is the Best Name for Extracted Honey?—Thomas G. Newman, Chicago, Ills.

W. Z. Hutchinson, *Sec.*

☞ The Western Bee-Keepers' Society will hold a meeting on Wednesday, Nov. 16, 1887, at the residence of Mr. Peter Otto, corner of Park and 25th Streets, Kansas City, Mo. Take the 18th Street horse-cars at 9th & Main Sts. for 18th & Brooklyn Sts., thence walk south to 25th St., and thence east one block to the house. We are sure of a cordial welcome from Mr. and Mrs. Otto, and expect a good meeting. Jas. A. Nelson, *Sec.*

☞ The Darke County Union Bee-Keepers' Association will hold their next meeting at Arcanum, O., on Friday, Oct. 28, 1887. J. A. Roe, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents. — It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there Is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books**, bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged.

The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

The Imperial and Royal ladies who wear the crown in Europe have an attraction even for readers in this republican land, and many will follow with interest Lily Higgin's account of Empresses and Queens whose portraits are given in the November number of FRANK LESLIE'S POPULAR MONTHLY, from Queen Victoria to the talented literary lady who shares the throne of Servia. One of the important points in the Nov. number is the commencement of "Prince Lucifer," a new serial novel of surpassing skill and power by Etta W. Pierce. This must be hailed with delight by all readers of well drawn character. The minor stories in this number are all extremely clever.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey•light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

California Excursions.

At frequent dates of each month, the Burlington Route, C. B. & Q. R. R., runs excursions to San Francisco, Los Angeles and San Diego, at greatly reduced rates of fare. By the "Burlington" one can have a choice of routes to California, as its lines from Chicago, Peoria and St. Louis extend to Denver, Council Bluffs, Omaha, Saint Joseph, Atchison and Kansas City. Should one desire to make the return trip via Portland, Oreg., they can continue their journey south or east from St. Paul or Minneapolis, over the Burlington Route, to Chicago, Peoria or St. Louis. For California excursion dates, rates, tickets or further information, apply to ticket agents of the C. B. & Q. or connecting railroads, or address Paul Morton, General Passenger and Ticket Agent, Chicago, Ills. 43A4t

◆

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 00
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Receipts continue light, and prices tend higher.

Oct. 14. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—We quote : White comb in 1-lb. sections or about, brings 18@20c.; some fancy shipments are held at 22c.; 2-lb. sections, 16@18c. Dark honey is slow sale. Extracted, 7@10c.

BEESWAX,—22@23c. R. A. BURNETT,
Oct. 20. 181 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections sells as high as 19c. A few lots are held at 20c. Demand increases as fruit becomes scarce.

BEESWAX.—23c.
Oct. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 18@19 cts.; 2-lbs., 16@17c. White clover extracted, 8c.

BEESWAX.—25c.
Oct. 5. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. Demand fair.

BEESWAX.—25 cts. per lb.
Oct. 22. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white liquid, 6@8½c.; amber colored and candied, 5¼@5¾ cents. White to extra white comb, 15@17c.; and amber, 10@12½c. Supplies and demand are small.

BEESWAX.—17@21c. for good quality
Oct. 15. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.
Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.

BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 18@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.
Oct. 6., CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.
Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.; 2-lbs. glassed, 10c. Extracted, white, 9@10c.; dark, 6@7c. Demand good, market firm.

Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.
Oct. 10. ARTHUR TODD, 2122 N. Front St.

Advertisements.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

Bee-Keepers' Cards. HEAD-QUARTERS ! —Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.

Address **J. H. MARTIN**,
4Aly HARTFORD, Washington Co., N.Y.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

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Our Cartons *for enclosing* Section Honey *are the* best *and* lowest priced *in the market. Made in* 1 *piece. With* Tape *Handles or without. With* Mica *Fronts or without. In the* Flat *or set up.* Printed *or plain. Any way to suit. We are bound to please. We have put in special Machinery for their manufacture, and are prepared to fill Orders promptly.* Circulars Free. *Samples* 5c.

14 *oz.* Glass Jars *$5.25 per gross, including Corks and Labels. 1 1-2 & 2 gross in a Case, Send for Catalogue.*

A. O. CRAWFORD,
Box 428. South Weymouth, Mass.
21D10t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

SAMPLE COPIES
OF THE
AMERICAN APICULTURIST
sent free. Address,
39Atf "API," WENHAM, MASS.

TODD'S HONEY-CANDIES sell well at Fairs—average wholesale price 16c ℔ lb.; retail, 30 cts. Mail samples, 25 cts. HONEY and BEESWAX wanted on Commission, by—ARTHUR TODD, 2122 North Front St., Philadelphia, Pa.
31A13t

WORK FOR ALL. $50 A WEEK & expenses paid. Outfit worth $5 & particulars free.-**P. O. Vickery**, Augusta, Me.
39A8t

BEE-KEEPERS' GUIDE;
Or, MANUAL OF THE APIARY.
13,000 SOLD SINCE 1876.
5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

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High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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Perfection Cold-Blast Smokers,
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CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.
P.S.—Send 10c. for Practical Hints to Bee-Keepers

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

"Boss" One-Piece Sections,
MANUFACTURED BY
J. Forncrook & Co., Watertown, Wis.

PATENTED JUNE 28 1881.

Patented June 28, 1881.

WE will furnish you SECTIONS as cheap as the cheapest. Write for price-list.
Watertown, Wis., May 1st, 1887.

☞ Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

FOR SALE in CALIFORNIA.

ON account of the death of the proprietor, Mr. J. D. Enas, a RANCH of 240 Acres, partly Fruit—80 Colonies of Bees, Steam Machinery for the manufacture of Supplies for bee-keepers (a well-established business). The Land will be sold in 40 or 80 acre tracts. Also, Stock, the Farming Implements, and a large stock of Apiarian Supplies. For particulars, address

MRS. J. D. ENAS, (P. O. Box 306),
38A6t NAPA CITY, CALIFORNIA.

NEWSPAPER AND JOB PRINTING OFFICE
For Sale at a Bargain,

IT is located in a Southern Winter Resort. An accident to the Proprietor makes it necessary to obtain rest. For further particulars, address the proprietor,

H. A. COOK, Eureka Springs, Ark.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Nov. 2, 1887. No. 44.

The Air is Full of honeyed sounds. The bee,
Within the waxen lily's honeyed cells,
In monotone of mellow measures tells
Its yet unsated joyance ; drowsily
The swallows spill their liquid melody
As down the sky they drop, and faintly swells
The tremulous tinkle of the far sheep bells,
While wind-haps sigh in every crowned tree.

Beneath the beechen shade the reapers lie,
Upon their lips a merry harvest tune ;
Knee-deep within a neighboring stream the kine
Stand blinking idly in the clear sunshine,
And like a dream of olden Arcady
Seems the sweet langor of the summer noon.
—*Clinton Scollard.*

* * *

Mr. W. Z. Hutchinson has removed to Flint, Mich. Correspondents will please make a note of this.

* * *

Yes; Very Weak Colonies of Bees can sometimes be wintered, but as a general rule it is much better to double them up, and thus make strong colonies.

* * *

The Editor has been confined to his house by sickness during the past week—the physician having fought valiantly against a threatened typhoid fever. Letters requiring personal answers have suffered accordingly. He is now at his post again, but with weakened energies.

* * *

Father Langstroth is now having a relief from his brain troubles again. We trust it may this time give him a long release from the "dark cloud," as he expresses it. He is one of the grandest men of modern times—full of "the milk of human kindness," and has a heart large enough to take in the whole human family.

* * *

By the Virginia Papers we notice that Mr. E. C. Jordan exhibited at the Winchester Fair, in Virginia, a SCRAP BOOK filled with selections for many years, even antedating the late civil war. It is a volume of great value.

Mr. Jordan also presented the editor of the Winchester *News* with samples of his domestic wine.

The Wonderful Eyes of the Bees are now the model used by scientists for experiments which are intended to demonstrate the "optic track" which leads to the brain. In *Murray's Magazine* we find the following very interesting article on this subject :

Any one who will take the trouble to examine with a lens the head of a bee will see on either side the large, rounded compound eye, and on the forehead or vortex, three bright little simple eyes. The latter are, as their name implies, comparatively simple in structure, each with a single lens. But the compound eyes have a complex structure. Externally the surface is seen to be divided up into a great number of hexagonal areas, each of which is called a facet, and forms a little lens. Of these the queen-bee has on each side nearly five thousand, the worker some six thousand, and the drone upward of twelve thousand. Beneath each facet is a crystalline cone, a so called nerve rod, and other structures too complex to be here described, which pass inward toward the brain.

It will be seen, then, that the so-called compound eye, with its thousands of crystalline cones, its thousands of "nerve rods" and other elements, is a structure of no little complexity.

The question now arises, is it one structure or many ? Is it an eye, or an aggregate of eyes ? To this question the older naturalists answered confidently—an aggregate. And a simple experiment seems to warrant this conclusion.

Puget, quoted in Goldsmith's "Animated Nature," adapted the facets of the eye of a minute aphanipterous insect of the genus Pulex—so as to see objects through it under the microscope. "A soldier who was thus seen, appeared like an army of pigmies, for while it multiplied it also diminished the object ; the arch of a bridge exhibited a spectacle more magnificent than human skill could perform, and the flame of a candle seemed the illumination of thousands of lamps."

Although Mr. Cheshire, of London, in his book on the bee, adopts this view, and supports it by reference to a similar experiment, it numbers to-day but few supporters.

One is tempted to marvel at the ability of the drone to co-ordinate 24,000 separate images into a single distinct object. Picture the confusion of images of one who had sipped too freely of the sweet but delusive dregs of the punch bowl ! Under similar circumstances human folk are reported to *see double*. Think of the appalling condition of an inebriate drone !

Those who believe the facetted eye to be one organ with many parts, contend that each facet and its underlying structures give not a complete image of the external object as a whole, but the image of a single point of that object. Thus there is formed, by a juxtaposition of contiguous points, a stippled image, or an image in mosaic. Hence this view is known as Miller's mosaic hypothesis.

Lowne has experimented with fine glass threads arranged like the cones and nerve-rods of the bee's eye, and finds that (even when they are not surrounded by pigment, as are the elements in an insect's eye) all oblique rays are got rid of by numerous reflections and the interference due to the different lengths of the rays. Some modification of the mosaic hypothesis is now generally adopted and Dr. Hickson has recently worked out with great care the structure of "the optic tract" which lies between the crystalline cones and the brain.

* * *

Now is the Time to protect the bees from winter's cold blasts, if they are to remain on the summer stands. Pack them with chaff or leaves, or if nothing better is at hand, build a corn-fodder shock around each hive, or set boards up around them to protect them from the wind. Of course it would be better to pack them all around with 6 or 8 inches of chaff ; shade the entrance from the direct rays of the sun, so that the bees will not be enticed out when it is too cold.

The Bees in Winter.—A correspondent writes us as follows :

I have had a discussion with a neighbor about the condition of bees in winter. He thinks that they need not be disturbed at any time after being prepared in the fall and left on the summer stands. I contend that they need careful watching, and sometimes manipulatino. We have agreed to leave it to you to decide as to which is right.

If they have plenty of food for winter, and are well-packed or protected from the winds and severe weather, they do not need much manipulation. But they should have careful watching. Mice are sometimes troublesome, and make inroads ; dead bees clog up the entrances ; ice accumulates on the alighting-board ; caps blow off in high winds, and sometimes the whole hives are tipped over. These calamities should be remedied as soon as possible. A piece of wire 18 inches long, with a short hook bent at the end, is very handy with which to clear the entrances. During cold weather the bees require but little air, and the entrances should then be contracted, but in warm weather they need more ; if closed in, they may become excited and smother.

* * *

No Excitement Here.—It has been asserted in other cities that there will be considerable excitement in Chicago during the week of the Anarchists' executions. Several have written to us to ask if it is likely to interfere with the Bee-Keepers' Convention. To all, we have written that there is no excitement here, and we do not think there will be any trouble. Mr. Grinnell, the States' Attorney, makes this statement :

There is no such state of feeling in Chicago, and no such extraordinary precautions have been made. The police are simply doing what they always do when an execution is about to take place. The people are not moving out of the houses near the jail in anticipation of an outbreak. My office is as near as any place can well be to the place of confinement, and if a bomb was to be found anywhere one might expect to look for it there, but I have not the slightest apprehension of anything of the kind.

No one need consider the matter in connection with the Bee Convention.

* * *

Honey Production in England.—The London *Journal of Horticulture* makes the following statement about the amount of honey produced in England since we visited Europe in 1879. Then there had been no advancement worth mentioning in 40 years:

There has been a great increase in bee-keeping throughout the United Kingdom during the past seven years, and where cwts. of honey were produced ten years ago, tons are now gathered in and sent to market.

When Mr. Cowan was here he remarked to us : "You would be astonished to see the present state of the pursuit in England now, as compared to what it was when you visited us eight years ago !"

* * *

Among the Industries of Paris, says the Leeds (Eng.) *Mercury*, the keeping of bees is one that is much practiced, and frequent complaints have been made to the police about the nuisance this occasioned. One inhabitant alone in the 19th Arrondissement keeps from 800 to 900 colonies, and there are a great number to be found in the 13th Arrondissement, near the goods station at Ivry.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Water for Bees when Shipping.

Query 489.—1. In shipping bees in hives, is it necessary to provide water for a confinement of from one to two weeks? 2. What is the best way to provide the water?—W., Tennessee.

It is not, if they have honey or "Good candy" for food.—A. J. COOK.

I have never provided any water for the colony when shipping bees, and I have been fairly successful.—G. M. DOOLITTLE.

1. If the weather is cool, water is not necessary. 2. A tin can with two compartments with a small perforation at each end.—J. P. H. BROWN.

Not unless they have a very large amount of brood, and it is always best not to ship them at such a time.—DADANT & SON.

1. Yes. 2. Directions should be given to Express Messengers to slightly sprinkle the bees with water every 24 hours. In shipping bees 500 miles by Express, no water is necessary.—G. L. TINKER.

1. Yes. 2. Sponges or cloths kept well wetted are good. If any empty combs are in the hive, they might be filled with water by pouring from a watering can at a height of 3 or 4 feet. —C. C. MILLER.

Yes, if there is unsealed brood in the hive, and you wish to preserve the life of that brood. I have accomplished it by fastening in the hive a sponge, or roll of rags, saturated with all the water it would hold without dripping.—JAMES HEDDON.

Yes, it is much better. Cloths or sponges wet in water will be of some help, but I should think that a bottle filled with water, its mouth stopped with a sponge, and turned upside down, would be better.—W. Z. HUTCHINSON.

1. Giving my experience, it is. 2. A pad made of cotton cloth and filled with fine sawdust, *well soaked in water* will hold moisture for a long time.and is the best plan I have any knowledge of. When shipping bees by the pound, etc., I have tested the sawdust pad thoroughly, and it has stood the severest trials, holding the moisture till the bees reached the end of their journey, be it long or short.—G. W. DEMAREE.

1. Unless the weather is very hot, I do not think there is any need of a supply of water, if the bees are properly packed. 2. I should, if giving moisture at all, use cotton waste or something absorbent in its nature, in one end of the shipping-box, protected by coarse wire-netting and saturated with water. A card could be tacked on the end where the absorbent is placed, asking the Express Messenger to pour in a little water daily.—J. E. POND.

If bees were to be confined for two weeks in a shipping condition, they would need water. If you had only said whether some one was going in charge of the bees, it would be so easy to say how to provide the water. —H. D. CUTTING.

Water is often necessary for brood-rearing, etc. A wet sponge will supply it, or an empty comb may be filled with water.—THE EDITOR.

* * *

Preparing Hives for Shipping Bees.

Query 490.—1. What is the best way to prepare the hives for shipping bees? 2. How much space should be given above and below the frames? 3. How much wire-cloth should be used in giving ventilation, and in what manner is it used?—C., Tennessee.

1. Fasten the frames securely. 2. I shall in the future use 2 inches above the frames. 3. The whole size of the top of the hive.—G. M. DOOLITTLE.

Nail the ends of the top-bars to the hive. Have the combs stand parallel with the track, if on a railroad. Have a wire-cloth both above and below the hive, with a space of 3 inches between *it* and the frames.—W. Z. HUTCHINSON.

1. Plenty of room and ventilation, with a notched strip to hold the frames at the bottom. 2. A half inch below, and from 1 to 2 inches above. 3. It depends upon the season and size of the colony—better too much than not enough.—J. P. H. BROWN.

1. Much depends upon how warm it is. In hot weather a covering of wire-cloth the full size of the top of the hive is none too much. 2. An open space of 4 inches between the frames and the wire-cloth will do, with no extra space below the frames, or, if the hive admits it, part or all of the open space may be provided at the entrance.—C. C. MILLER.

All depends upon the season of shipment. Bees can be sent in hives entirely closed, during the cold months. In summer they require more or less ventilation; sometimes it is best to give them 3 or 4 inches above the combs, and to cover the entire bottom and top with wire cloth. Shipping bees requires judgment and some practice.—DADANT & SON.

If you had only said, by rail or wagon, the distance, etc., then it would be less difficult to give suggestions. 2. Two inches above and below, with wire-screens over the entrance, and over the whole open top. You can leave the hive on the bottom-board or platform, but I prefer to cut holes at least 4 inches square, and cover them with wire-cloth. Make a frame two or more inches deep, and fasten it on top of the brood-chamber, and tack wire-cloth on top, over all.—H. D. CUTTING.

If the frames come level with the top of the hive or brood-chamber, a cleat may be nailed across each end of the frames, that will hold them in place. In the spring, a sheet of wire-cloth to cover the frames and entrance is sufficient; but if the weather is very warm, a case 6 inches deep, the full size of the hive, covered with wire-cloth should be put on top, with wire-cloth over the entrance, or over the bottom of the hive, if the colony is very strong.—G. L. TINKER.

Be sure that all is firmly nailed, so that the bees cannot possibly get out. Use old or wired combs, that they may not break loose. Be sure that the frames are secure, either nailed at the rabbet, or so held by a board that they cannot possibly move. In hot weather cover entirely above with wire-gauze, and also at the entrance. (See Dr. Miller's admirable little book.) Less ventilation is required in cool weather than in warm. —A. J. COOK.

1 and 2. My way is to space the frames evenly, using 6 frames in a 14¼ inch wide Langstroth hive; giving, say 2 inches of open space at the top. 3. I cover the whole top with wire-cloth well protected; at each corner of the bottom I tack a strip 3 or 4 inches long, and 1½ inches thick, on which I screw the bottom-board, covering the open space on the sides and ends with wire-cloth. This gives ample ventilation. Holes may be bored in the bottom, but if the hive is covered up with other freight they may prove to be entirely useless.—J. E. POND.

1. That is a matter that may be varied considerably. 2. That depends upon the size of the colony and the season of the year in which they are shipped. In the late fall, winter and spring, the bees may be confined in their ordinary breeding quarters by means of a coarse cloth over the top of the hive, and some strips of wire-cloth over the entrance to the hive. But in hot weather there should be a space 3 or 4 inches above the tops of the frames, which should be covered with wire-cloth the full size of the top of the brood department.—G. W. DEMAREE.

I always close the entrance tight, because I can nail a stick over it quicker, stronger, and cheaper than wire-cloth. I cover the top with a wood frame the full size of the top of the hive, 2 inches deep, with wire-cloth tacked over the entire surface. This 2-inch space between the wire-cloth and the frames is a great advantage. On top of the screen frame I nail three pieces across the narrow way, 1½ by ⅞ inches, and as long as the frame is wide; one at each end, and one across the middle. This protects the wire-cloth,and if the weather is not too hot, one hive can be set on top of the other in the cars. When the weather is too warm, I put on only one cleat, and that in the middle. and make it rounding so that they cannot place one hive on another. I fasten these screens to the hive with ten-penny nails, driven edgewise through the sides of the frame near the corners, four nails to the frame. These nails reach through and go into the head of the hive an inch and a half. Sometimes I fasten at the corners, in the way of toe-nailing, with small nails.—JAMES HEDDON.

1. Cut strips ½-inch square, and put down between the side bars of each frame, so as to hold the combs securely. 2. A space of ⅜-inch below, with from 2 to 4 inches above will do. 3. If the hives have porticos, nail wire-cloth over the outer edges of them. If not, nail wire-cloth over the entrances, and give ventilation and a place of refuge in case of breaking down of combs, over the frames.—THE EDITOR.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ⊸ east; ⟜ west; and this ♂ northeast; ⚦ northwest; ⚲ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

"Basswood" vs. "Linden."

DR. A. B. MASON.

For several months past—in fact ever since the appearance of Mr. S. T. Pettit's article under the above heading, on page 23, I have intended to answer him, and also review some statements made by him in the *Canadian Bee Journal* for 1886, page 167, that called forth my remarks as reported on page 805 of the AMERICAN BEE JOURNAL for 1886.

I commenced at once to do as Mr. Pettit suggested on page 23, above referred to, "to get average samples of basswood honey from the different points of the United States, especially from the southern limit at which this tree produces honey," and wrote to one or more well-known bee-keepers in Virginia, West Virginia, Kentucky, Missouri, Kansas, Nevada and California, and to every State and Territory south of the above-mentioned, for a sample of basswood honey. I did not get the last answer till May, since which time I have been too busy working to get bread and butter, and honey, etc., for our family, to indulge my desire to write sooner.

It is possible that many of the readers of the AMERICAN BEE JOURNAL do not understand why I called attention to Mr. Pettit's article, and why he refers to what I am reported as having said on page 805, mentioned above; and the same number of readers may not even be aware that there was an "Indian and Colonial Exhibition" in England last fall, and that our Canadian bee-keeping cousins made a very large and creditable display of honey, and that previous to, during, and for some time after the exhibition, that the *Canadian Bee Journal* was "chock full" of what was to be, and was done at the "Colonial;" and also contained some pretty warm words about what was done with some of the $1,000 granted them by the Government to help pay the expense of making their honey exhibit at the "Colonial."

That all the readers of the AMERICAN BEE JOURNAL may know just how our Canadian cousins started out to place their basswood honey in the "markets of the world," especially the English, it may be well to copy Mr. Pettit's article and the Editor's remarks from the *Canadian Bee Journal* for 1886, as found on pages 167 and 168. It is as follows:

LINDEN HONEY.

The question whether Canadians shall in the future name the honey produced by the Canadian linden tree, linden honey, or "basswood" honey, has been carefully considered by the managing committee. And I am proud to be in a position to state that the term "linden" has been unanimously adopted. So that name will in the future be used by all Canadians. Hence, no more "basswood" honey in Canada.

R. McKnight, Esq., of Owen Sound, whose opinions we all so much respect, says, "Let it be linden, as at once more respectable and correct. Basswood is a term known to the people of England only in connection with things disreputable."

Our American friends use the term "linn," or "basswood," but generally "basswood." Now, we desire to make everything in connection with our exhibition, and in the markets of the world, too, as distinctively Canadian as possible. So let us all use the name linden on our labels, and in our conversation both at home and abroad.

Another thing, our fine, richly-flavored, crystal "linden" honey is superior to American "basswood" honey. Messrs. C. F. Muth & Son, of Cincinnati, O., who perhaps handle more honey than any other firm in America, class American basswood honey with buckwheat and other fall honey, thus proving conclusively that the bulk of American basswood honey is inferior to Canadian "linden" honey.

Allow me further to say that there are two varieties of trees in Europe belonging to the linden family, and two in America. *Tilia Americana*, American linden, or common basswood, and *Tilia heterophylla*, white linden, are as emphatically true linden as any tree in Europe.

But it seems certain that the further south the honey is produced by this fine tree, the poorer it is. No question but our American cousins will adhere to the name basswood, that they have so long used; and I am sure that Canadians have no objections to that, and we will all use the name "linden," both for honey and sections. And so, by the way, our products will all stand upon their own merits.

A little friendly rivalry in the markets of the world very likely will do us all good.—S. T. PETTIT, President Ontario Bee-Keepers' Association.

We were not aware that friend Muth classed basswood and buckwheat in the same category. We never saw American basswood as dark as buckwheat. The Northern States should, and we believe do, produce just as fine basswood honey as we. We agree with friend Pettit, that it is well to have some distinctive name by which this particular brand of honey shall be known "the world over," and as the word "linden" has never had the stigmas cast upon it that "basswood" has, the former certainly should be the name. Then our English friends will not be able to class our honey with "basswood nutmegs," "basswood hams," etc.—EDITOR OF THE CANADIAN BEE JOURNAL.

With the very kindest, and most friendly feeling towards Mr. Pettit personally, I hope I shall be pardoned for any seeming unkind expressions that I may use in reviewing his articles.

I was thoroughly surprised at some of the statements made by Mr. Pettit in the above article, and some of the comments of the editor; and on re-reading it, my surprise was somewhat mixed with vexation, and the more I thought about it, the more thoroughly did I become convinced that it was a "put up job," and a deliberate and unwarranted attempt, by misrepresentation and fraud, to build up a name and market for Canadian basswood honey, in markets and localities where United States basswood honey had already been introduced; and I feel quite confident that if I had been in the presence of that august "managing committee" at the time it was classing United States basswood honey with "buckwheat and other fall honey," it would have had something to have thought about, for a few minutes at least, besides basswood and linden honey, and I pity the ignorance, or the dishonesty (I do not know which it is) of every one, be he Canadian, Englishman, or "any other man," who has said that the basswood honey produced in the United States is inferior to the "fine, richly-flavored" Canadian article, because of its quality or color.

To be sure, the name "basswood" is used as the name of the honey produced by the linden tree in the more northerly portion of the United States and Canada, but in the southern part of the United States, and as far north as the centre of this State (Ohio), the tree and honey are both called either linden or "linn," and to speak of basswood trees in that locality, to any one not acquainted with the name as used further north, is to mention a (to them) new kind of tree, until told it is the same as linden.

Where Father Langstroth lives, this tree is known as linden, and was so called by him more than a quarter of a century ago in his "Treatise on the Hive and Honey-Bee." It is also known as linden in some localities further north.

While on a business trip in the East last summer, a friend who spent some time in Wisconsin several years ago, told me of a forest of linden trees that extended along a road, on both sides, over three miles, and he did not learn how far it extended each way from the road, and it was known as the "Linden Forest," being composed of linden trees only. So I judge that the name "linden honey" is not a new one, probably having been in use in the United States ever since it first became known what flowers produced the different kinds of honey, and was simply *discovered*, abducted, or *stolen* and adopted by the "managing committee."

With these *facts* before us, I wonder if it will occur to the mind of the average Canadian, that the word basswood is of their own coining, and that the people in the northern portion of the United States, owing to their "nearness" to Canada, have also adopted it.

And now, after the "Yankees" have established a name for their "fine, richly-flavored crystal" basswood honey in the "markets of the world," especially the English market, it seems that the Canadians, wishing to take advantage of its popularity, have previous to, during and since their "Colonial Exhibit," been pushing their basswood honey under a (to them) new name, calling it (in a "wily" way) superior to "American basswood" honey.

If some of Mr. Pettit's assertions did not carry upon their face the evidence (at least to some of us) of their untruthfulness, they might be put down as "bombast"—which, of late, has so frequently shown itself in the writings of our Canadian and English relatives.

Can it be possible, as Mr. McKnight says, that the term "linden" is "at once more respectable and correct" than the term "basswood?" If the term *has* at any time been used in connection with something not "respectable," why should the name itself be any the less respectable? Because so many MEN are not respectable, it by no means follows that Mr. McKnight is not respectable because *he is a man*, and ought not to acknowledge the name *man* in order to claim respectability.

Mr. Pettit says: "Our fine, richly-flavored, crystal 'linden' honey is superior to American 'basswood' honey." He certainly is not well informed in regard to the quality, color and flavor of the basswood honey produced in the United States, or he has deliberately made what he ought to have known is a false statement. He further says: "Messrs. C. F. Muth & Son, of Cincinnati, O........class American basswood honey with buckwheat and other fall honey, thus proving conclusively that the bulk of American basswood honey is inferior to Canadian 'linden' honey." If the testimony of *one* is "conclusive" proof, then I have a large number of "conclusive" proofs that Mr. Pettit has made statements, for true ones, that are absolutely false.

If the Messrs. Muth have classed basswood honey as Mr. Pettit says, they have made a bigger blunder than I can give them credit for. But if they *have* so classed it, it does not follow that they were right; and it seems to me that any one, in the least posted as to the color and quality of the "fine, richly-flavored crystal" basswood honey produced in the United States, would *know* that Mr. Pettit's statements were made without his being well informed in the matter, and such statements are slanders upon one of our finest grades of honey.

"*Slander*, that worst of poisons, ever finds
An easy entrance to ignoble minds."

Now for "just a little" of the "thus proving conclusively that the bulk of the American basswood honey is" NOT "inferior to Canadian linden honey:" Mr. James Heddon, whose opinion on this subject is probably not a whit less valuable than Mr. Pettit's or any one else's, in an article in *Seed Time and Harvest* for February, 1887, speaking of the different kinds of honey, says:

"The basswood is very white and fine flavored. It is the whitest of all honey. Last season I presented Father Langstroth with his choice of a 100-pound keg of either grade, and he chose the basswood," and wrote, "That he believed there was no other honey to compare with it in richness." ....And then says: "It is a favorite on our table." Two "conclusive" proofs; but here is another:

The editor of the AMERICAN BEE JOURNAL, who, it will be conceded is first-class authority, on page 24, at the close of Mr. Pettit's article, says: "United States basswood honey is by no means *dark*, and is not so classed in this city. That it varies in different localities is true, but it is never dark." Another "conclusive" proof.

One more "conclusive" proof, and it comes from a "conclusive" source, and on this account is more valuable than any other, it being a Canadian, and none other than the editor of the *Canadian Bee Journal*, who says: "We never saw American basswood as dark as buckwheat. The Northern States should, and we believe do, produce just as fine basswood honey as we." "Conclusive," eh?

One thing more: The editor of the *Canadian Bee Journal*, after speaking in favor of "linden" as the "distinctive name" for Canadian basswood honey, says: "Then our English friends will not be able to class our honey with 'basswood nutmegs,' 'basswood hams,' etc." Why not do as the boy did when he drew a picture and wrote under it, "This is a horse?" Just mark the packages sent to the English market, "This is Canadian Linden Honey," and then keep close watch of the market and see that no "basswood nutmegs" or "basswood hams" are marked the same way by some "wily" Canadian, and put on the market, thus defrauding the unsuspecting and "modest" Englishman.

One of three things seems evident, namely, either "our English friends" must be very poor judges; or the "'basswood nutmegs.' 'basswood hams,' etc.," dealt in by "our English friends" are so much like "our fine, richly-flavored crystal 'linden' honey," that they cannot tell the difference; or it is a huge "joak."

Is it not about time some one just *slightly* pricked some of the egotistical and bombastic bubbles that have been sent up by some of our "cousins across the border," and other relatives on the other side of "the pond?"

Auburndale, Ohio.

[We have handled thousands of pounds of basswood honey, which, when candied, was as white as lard, and of as rich and fine flavor as any one could ask for or desire.

Dr. Mason has given some excellent proofs on his point, but will no doubt pardon us for adding another. It is also from a Canadian, and one of her best and brightest sons—the Hon. Louis Wallbridge, Lord Chief Justice of Manitoba, and an ardent lover of the pursuit of bee-keeping, as well as a practical apiarist and an eminent and learned jurist. We formed his acquaintance in the office of the AMERICAN BEE JOURNAL, to which paper he has been a subscriber for the past 17 or 18 years. In 1881, before the Ontario Agricultural Commission, he testified as follows in answer to a question concerning the quality of the honey of "other countries" as compared with that of his locality (Belleville, Ont.) and other portions of the Province of Ontario. He said:

> I think the white clover and basswood the best. There are in all the accounts published a good deal of *brag*, for which due allowance must be made. I find that bee-keepers over-estimate. The occupation is of an exciting character, which may account for it.

After making that *due* ALLOWANCE for "brag," and the tendency to over-estimate, of which the Hon. L. Wallbridge speaks, the conclusion is inevitable that the basswood honey which he refers to is one and the same, as to quality, whether grown north or south of the great lakes, either in Canada or the United States, for he mentions no difference, and makes these remarks in reply to the question concerning the *quality* of honey in Ontario and *other countries*.

Then as to the average production of honey, he said:

> Last year, 1879, a very good year, each hive, taking that as the basis of calculation, averaged 98 pounds, extracted. This is more than a general average—perhaps 75 pounds would be a fair average; 40 pounds would be a fair average of comb honey. I have

taken one swarm and 101 pounds of comb honey from one hive. This is extraordinary.

But why all this nonsensical *bosh* about the difference between Linden and Basswood honey? Is it not born of jealousy, nurtured in contention, and reared in envy and discord? Its assumption is certainly useless, senseless, and entirely worthless!—Ed.]

Practical Farmer.

The Great Wintering Problem.

DR. W. G. PHELPS.

This question is again before us, and in spite of the assertion by one and another that it is no problem to them, that they feel perfectly safe in wintering their bees, the question comes to many of us with a good deal of force. How shall I prepare my bees so as to carry them safely through the winter? Let us look at some of the requisites that are considered positively necessary to successful wintering:

1. Abundance of young bees. The life of a worker-bee is very short. In the heighth of the honey harvest it is found by experiment that the whole population of the hive (with the exception of the queen) will be changed in from six to eight weeks. Bees at this time of the year do not die of old age, but wear themselves out, or rather, I think, they wear their wings out, and there comes a day when they will load themselves up so heavily that they fail to return to the hive. We often see the old bees with but stubs of wings trying two or three times to rise from the entrance on their outward flight, before succeeding. During the leisure of winter, bees live much longer, those hatched in September and October living through to March and April; so if we want our bees to go into winter in good condition, they must be reared during those months; and if honey is not coming in from the fields during that time, they must be fed in order to encourage brood-rearing. The older bees will die too soon in the spring before enough young ones are reared to keep up the cluster and do the work of the hive.

2. Abundance of food, and that readily accessible to the bees. As before stated, 20 to 25 pounds of honey or syrup for each fair-sized colony, capped over before cold weather sets in, is considered sufficient for winter, and until bloom opens in the spring. In order that the bees may make use of these stores, there must be some way provided whereby they may shift their cluster without having to pass around or under the frames, either by cutting small holes half an inch or more in diameter, through the combs near the middle of the length, and about 2 or 3 inches from the top; or by placing sticks across the top of the frames an inch or so apart, provide means for them to pass over, and so shift from one part of the hive to the other. By placing an inverted wooden butter-dish, such as the grocers use, across the top of the frames, a clustering chamber is formed, which the bees will take possession of and so gain access to the frames over the top, and being enabled to form a compact mass in the warmest part of the hive, save food and the wear and tear consequent upon its consumption in order to make the necessary heat.

3. Limited space. The size of the hive should be regulated according to the size of the colony, by removing extra frames and contracting the space with a division-board, so that the bees will be rather crowded for room, and so have less space to keep warm. The combs should be spread a little further apart for winter than for brood-rearing in the spring and summer, say 1¾ inches from centre to centre, instead of 1⅜ inches as is usual, by that means allowing more of the bees to cluster together between them.

4. Good ventilation at *the bottom of the hive;* that is, the entrance should be kept clear and open, but no *upward* ventilation, except so much as may pass through 3 or 4 inches of chaff or sawdust packing, which may be placed over the bees to keep down the heat. Where openings are left above the bees, either from a misplaced mat or ill-fitting cover, it causes a draught of air through the hive, and consequently great loss of heat, which should be particularly guarded against.

Galena, Md.

For the American Bee Journal.

About the Fasting of Bees.

WM. F. CLARKE.

The editorial note to Mr. Jones' article, page 681, where it is asserted that bees can fast for three months without sustaining injury, invites a few words from me.

I have no idea how long bees can safely fast, or for what periods they abstain from food when the weather and surrounding circumstances are favorable to their hibernating, but I believe that their normal winter condition, in this climate, is one in which they become dormant for certain periods during which they do not feed. Every well-authenticated case of bees fasting for a certain length of time, tends to corroborate my theory. Mr. D. A. Jones, in his experiments for the cure of foul brood, has demonstrated that a fast of three weeks does not hurt bees if they are kept perfectly quiet. He thinks if we only knew how to regulate the temperature, they could be safely kept without food for a very long time.

I could not desire a better statement of my theory than that given by Mr. D. A. Jones in the *Canadian Bee Journal* of Oct. 19, viz: "There is no longer any doubt in our mind that when a colony of bees only consumes a couple of pounds of food during the winter, they must lie in a semi-dormant state much of the time, or 'hibernate,' as friend Clarke puts it; because two or three pounds of stores would scarcely fill the sacs of an ordinary colony of bees, yet it is not an uncommon thing to have them wintered on less than two pounds."

What we want is a thorough series of experiments in relation to this matter. I have never been, and am not now in a position to make them. It requires a larger number of colonies than I can keep; facilities for both out-door and cellar wintering, which I have not; and continuous observation of results, which I am not able to bestow, as my duties often call me away from home.

Dr. Tinker, Prof. McLain, Mr. Jones and others have thrown much light on the subject by their investigations, and I am not without hope that before very long we shall get some fixed principles to guide us as to the right temperature and surroundings to secure the condition of dormancy or hibernation—call it what you will—which bee-keepers generally know to be the chief prerequisites for perfect wintering. The scarcity of stores the present season makes it a favorable time for these experiments, and I trust the coming winter will increase our stock and store of knowledge on this important subject.

Guelph, Ont.

Western Plowman.

The Restoration of Paying Prices.

C. H. DIBBERN.

One advantage that bee-keepers will secure by the very small crop, will be the restoring of prices to a paying basis. It remains to be seen whether they will allow competition, or a lack of proper distribution, to again force ruinous prices on them, as soon as a reasonably fair crop is produced.

I do not think that the very low prices prevailing for the past few years, were caused by over-production, but rather a

LACK OF JUDICIOUS DISTRIBUTION.

Here is a case in point: A few days ago, while passing a store, my notice was attracted to some small baskets of what appeared to be very fine peaches. They were packed in nice, new baskets with skeleton covers of alternately white and red colored wood, and the fruit itself was further covered with salmon-colored mosquito netting, giving to it a hazy and very pleasing effect.

Upon inquiring the price, I was somewhat surprised to find it $1 per basket, holding not more than one-half peck. I remarked that it was pretty high; but the dealer produced his bill from a commission merchant showing that they cost him 90 cents. Thinking that only a very reasonable profit, I bought a basket and took them home for Sunday. What was my disappointment upon opening the basket to find the fine peaches only on top, about a dozen of them, the rest being small, half ripe, fit only for cooking. Here I was paying $8 per bushel for a very inferior fruit. I happened to know that in the adjoining State of Missouri, better peaches could be bought for 15 cents per bushel. Of course I want no more such peaches at those prices. The nice packages were all right, and added greatly to their selling value. It is also valuable to put the best on top, just as we put the whitest comb honey next to the glass; but it is down right dishonesty to put an entirely inferior grade where it cannot be seen.

There is also something radically wrong with the distribution, when peaches are allowed to rot, or are hauled to some neighboring "still house" and sold at 15 cents per bushel, which, at a reasonable price, could be readily sold, only a few hundred miles away. As long as there are no better means of distributing this fruit, the producer in Missouri will mourn that he cannot get more than 15 cents per bushel, and the man in Illinois will lament that he cannot buy it without paying $8 for them.

EQUALIZING THE MARKETS.

The same conditions, in a less degree, apply to honey. Surely, with all our railroad and river transportation, there ought to be very much less difference in the selling and buying prices as here indicated. How many people can buy fruit at such prices? How many thousands of baskets is the demand cut short? I do not pretend to say where all this difference goes; if to the railroads, it is certainly a very short-sighted policy, as they could as well carry ten times the quantity, and by lower rates still greatly increase their receipts. If the trouble is with the packers or commission men, then their methods are equally short-sighted. It is quite likely that there are entirely too many of the middle men in the business.

Why cannot the producer pack and ship his own fruit or honey direct to the retail dealer or commission man? Then if there are over-charges they can be more easily located and avoided. I believe in allowing every one a fair profit for doing a necessary and fair business. I fail to see where any one is permanently benefited, where by any circumstances they can force prices so high that people cannot afford to buy, and often let goods go to waste.

Milan, Ills.

For the American Bee Journal.

Moving Bees before Wintering, etc.

THOMAS STOKES.

As Query 481, on page 644, relates to moving bees before winter, and having had experience the past year in that particular, I will give it for the benefit of those interested.

Last fall I had occasion to move to a new place about a quarter of a mile distant. Having built a workshop with a cellar under it, and not being able to move the bees early, in consequence of the premises being occupied with young children in the family, my only resort was to move them at the time, and directly place them in the cellar, as I reported last winter on page 153.

They wintered well, to all appearance, and in the spring they seemed in good condition, with only a reasonable amount of dead bees. On April 8 I removed 10 colonies from the cellar, it being a fine day, and the same evening I returned 8 of them, packing the supers in the others with straw to keep them warm. The balance of the colonies were left in until the end of April, without a flight until fine weather.

In this locality, nearly four weeks of continued fine, dry weather brought on the blossoms early, and abundantly, so that I could extract from nearly all by the end of May. Those left out from the first, continued steadily to increase, and one colony swarmed on June 6; while those having a flight came out next best, and those left in until nearly May dwindled down very much, the steady work day after day wearing the old bees out before young ones were hatched in sufficient numbers to keep up the strength of the colony. Those put out for a flight, on removing them, finally had a good deal of brood, while those having no flight had little or no brood.

Of course this was an exceptional year, but my experience based on it, would be that if they had to be placed in the cellar without a flight, I would give them one as early as possible next spring, and return them or pack them on putting them out, and leave them.

MY REPORT FOR 1887.

I started on June 1 with 29 colonies, from good ones to mere nuclei, and increased to 58 by the first week of July, nearly all by natural swarming, and all but 2 colonies having swarmed by that time. I took 600 pounds of honey, mostly extracted. I think there is much experience gained this year not to be found written in the books. For I for one was not calculating on so sudden a cut-off of nectar, but was managing to have all swarming done awhile before linden bloom, *a la* Doolittle; and when nearly accomplished, on came the linden fully 10 days ahead of other years, and with it the close of the honey season; while in previous years our most surplus is obtained from July 15 to the end of August, and during that time this year they did not get enough for brood-rearing, but have consumed a large amount of stores.

The dry weather continued here until Oct. 1, when it was wet for two weeks. I have doubled back my colonies to 39, and they are not all as heavy as I could wish. Had I known it, more surplus could have been obtained by giving more room and discouraging swarming a short time longer; but instead I have a lot of good combs ready for use when next season arrives.

Minesing, Ont., Oct. 19, 1887.

Rural Canadian.

Display at the Toronto Exhibition.

This department of "Canada's Greatest Fair" was located the present year in the southern half of the dairy building, an arrangement which gave ampler accommodation inside, but allowed no exterior space for hives, tents, clamps, and other bulky fixtures. The honey-house used heretofore was much too strait, both for the exhibit and the visitors who wished to see it. Now that the association is flush in funds, it would be well to erect a building specially for he accommodation of honey-producers and dealers in apiarian supplies.

It is well known that the present season has been an unfavorable one for the interests of bee-keepers. A hard winter was followed by a dry, hot summer, during which the honey-flora bloomed but sparingly, and was very deficient in liquid sweetness. Consequently the crop of honey is short, so much so, that some who have been prominent exhibitors heretofore, have not a pound of honey to sell or to display to the eyes of an admiring public. Still, it is only by the conspicuous absence of noted exhibitors that any impression would be gathered that the season of 1887 has been a bad one for honey. There seemed to be abundance of it in jars and cans of all sorts and sizes; also, in sections and section-cases of various dimensions and shapes. The quality of this year's honey is very fine. It is unusually thick and rich. Sometimes there is complaint of honey being thin and watery. This is apt to be its character in a dropping summer. However deficient in quantity, it is A No. 1 in quality the present year. The samples competing for prizes were so uniformly good as greatly to puzzle the judges.

Large quantities of honey were sold in the course of the Exhibition. In addition to the supply brought for show purposes, orders were taken for future delivery, at good prices. Bee-keepers will not have to complain of a slow or a low market the present year, and perhaps the demand, whetted by scarcity, will be all the keener in years to come than it would have been under the influence of a continued glut.

It will be well for all whom it may concern, to take notice that hereafter the cutting of honey for sale is to be prohibited at the Toronto Industrial, as it ought to be at all exhibitions. This practice is messy and slovenly, attracts the bees of the neighborhood in large multitudes, making visitors nervous and fearful of being stung; and though many pounds of honey are sold by means of it, there is room to question if the greatest good of the greatest number is secured by it. At any rate, the fiat has gone forth, and such bee-keepers as want to sell 5 cents' worth of comb honey at the Toronto Industrial hereafter will have to get their bees to fill quarter-pound sections.

Several novelties in the way of apiarian fixtures were on exhibition.

Among them, and well worthy of notice, is a new method of fastening comb foundation in sections, by means of an ingenious little machine, in which heat is applied to the section and pressure to the comb foundation. Confectionery of various kinds, prepared with honey, made an attractive display, but it is very doubtful if honey can be economically substituted for sugar in such preparations. Properly speaking, honey is itself a confection. It should not be brought into competition with sugar as a sweetener, being itself a perfect sweet-meat from nature's pantry.

On the whole, the exhibit of honey and apiarian supplies at the recent Toronto Industrial proved conclusively that bee-keeping is abreast with other lines of productive business, both in methods and results. Visitors from abroad, competent to judge, did not hesitate to pronounce the opinion that no country in the world can surpass Canada, either in the excellence of its honey or the skillfulness of management on the part of its bee-keepers.

For the American Bee Journal.

The Season of 1887, etc.

J. V. CALDWELL.

The harvest is past, and the summer is ended—and I have no honey.

This has been the poorest season for honey since I have been in the business except one, in 1879. I had to feed a large amount of sugar syrup for winter stores. I have just finished fixing up my bees for the winter by equalizing stores; there is enough for all. They are all in excellent condition for winter, and if it was not for the reason that the clover is badly killed by the dry weather, and consequently not so good a prospect for next season, I would be contented, as I believe that the failure this season will result in better prices for several years to come. The country will be cleared of the overstock of honey. What little honey consumers get this winter will be at a better price, and it will be easy to keep the price up for some time.

And it will close out a lot of small producers, who, if they have a few hundred pounds of honey, rush it into market at any price, thinking they are going to glut the market. One of that kind lives a few miles from me. He had 18 colonies last spring. He bought 8 pounds of foundation and 500 section boxes. About the time clover began to bloom, he came to town and went around to the stores and to private houses engaging honey in sections at 10 cents per pound. Well, he did not bring very much honey; he was getting the "bulge" on me in selling his honey.

This same man came to me a few days ago, to learn how to feed his bees. I told him that he had better get some book on bee-keeping, and subscribe for a bee-paper. I used to have a good home market for my honey, but a few of the same kind as the man I have mentioned, spoiled my trade last season. I sold but little comb honey at home, and could not do as well as to ship it.

I have a little of last year's honey on hand; not much, but I am getting my own price when I let it go. From what I can learn from small bee-keepers in this vicinity, I think there will be but few bees left in the spring, many colonies are dead now.

INVENTION OF THE TIN-T CASES.

As there is considerable talk about T-tin cases, I would like to know who is entitled to the honor of having first made and used them. My neighbor, Mr. J. B. Keeler, and myself made and used them in 1876, and have used them ever since. Who made and used them before the Centennial year?

MARKET REPORTS OF HONEY.

A short time ago, I thought, as I was going to St. Louis, that I would buy a lot of both extracted and comb honey, as the prices quoted in the BEE JOURNAL would give me a good profit, for I could readily sell comb honey for 20 cents, and extracted at 12½ cents per pound. The price of comb honey was reported at 10 to 12 cents, and extracted in barrels at 4½ to 5½ cents. I called, and found the commission house had on hand two 5-gallon cans, and six quart-jars of California honey: but not a pound of comb honey in the shop! They thought I could not get it in the city, as honey was very scarce, and none coming in. Query: How did that firm know that 10 to 12 cents per pound was all that comb honey would bring in the market?

I went to nearly all the dealers, and could not find a pound of comb honey. A house that has sold a great deal of honey for me, said that they could easily get 20 cents for such as I usually sent them, if they had it. Valuable market report!

Carlinville,⊙ Ills., Oct. 22, 1887.

[Such market reports are an insult to bee-keepers.—ED.]

Gleanings.

Bees in the Cumberland Mountains.

DR. O. M. BLANTON.

Here I am, far away from home, at Mount Eagle, Grundy County, Tenn., on the Sewanee range of the Cumberland Mountains, 2,300 feet above the level of the sea. This is a health-resort, conducted on the plan of Chautauqua, in New York, where persons can enjoy themselves in religious exercises, lectures on various scientific subjects, and the study of all branches of learning in the schools here established for the mental improvement of the visitors assembled.

The atmosphere is balmy and health-giving, with a temperature during the summer months of 65° to 85°. The top of this mountain-range is a plateau extending fifty by about five miles wide, with some of the grandest scenery the lover of nature could desire.

I here met Mr. Albert Wells, of South Pittsburg, Tenn., an old bee-keeper who has an apiary of 30 colonies three miles from this village, located on a cliff that commands the view of Battle Creek Valley, with its grand palisades, coves, and chasms. On the plateau there is a great variety of honey plants, such as goldenrod, eupatorium (boneset), asters, and lespedeza (Japan clover); also trees and shrubs; chestnut, black locust, sourwood, and sumac. I observed in the fields, on the commons, roadsides, and every open space in the forests, lespedeza growing in the greatest luxuriance. As to its capacity to produce nectar for bees, I know nothing; but for its presence, cattle would suffer during the winter months.

The sides of the mountains and the valleys below are rich in the most valuable timber, such as poplar, bass-wood, black locust, walnut, oak, and hickory, with redbud, dogwood, and red-haw. The usual wild flowers (perennials) abound, and are prolific in nectar, owing to the rich and damp soil with its many delightful springs.

The bowels of the earth abound in coal and iron. The railroad running along the crest of the mountain was constructed for the conveyance of coal and coke from the mines. I consider this a paradise for the bee-keeper, especially when in quest of health.

With the exception of Mr. Wells, all keep their bees in "gums," as their forefathers did. Mr. Wells' bees are in good condition, although his yield of honey has been small, owing to ill-health preventing the proper attention being given them. I shall try a few here next year, as an experiment and pleasant pastime, with the hope of stimulating the old-fashioned bee-keepers to scientific methods of handling bees.

My apiaries at home, Greenville, Miss., I farmed out to my head bee-keeper, Mr. Alfred Latta, on shares; and from what I can learn they will not yield more than half a crop—about 20,000 pounds.

The cold spring, with excessive rains in June and July, and severe drouth in August and September, are the causes. I return home in a few days, as the forests are putting on the sere and yellow leaf, and the cotton harvest of the valley is demanding my attention.

Mont Eagle,⊙ Tenn., Sept. 28, 1887.

For the American Bee Journal.

My Experience with Bees, etc.

H. BRAMLET.

I commenced 3 years ago with one colony of black bees, and I wintered them on the summer stands, on from 5 to 7 Langstroth frames. I began the season of 1887 with 13 colonies, and now have 23 in fair condition, without feeding. I realized $15 from the sale of bees and honey, after paying for four queens from four different breeders; and "last but not least," our own table has been pretty well supplied. My bees are Italians and hybrids, and the queens are all pure, but some of them were impurely mated.

The season here has been about an average with the general reports. The black bees in this section that did not abscond in the summer. will nearly all starve the coming winter. I have about 300 sections filled with from one-third to full drawn comb, nicely cleaned up and arranged in supers with the full drawn comb on the outside, and those with the shallowest cells in the centre, packed away for next year.

Raleigh, ♀ Ills., Oct. 25, 1887.

American Agriculturist.

Early Winter Management of Bees.

A. H. DUFF.

Success with bees depends largely upon fall management. At no other time in the year is more careful manipulation required than in preparing bees for winter quarters. To place a colony in the best possible condition, a fair amount of brood-rearing should be kept up during August and September. In most localities, very little if any honey can be gathered by bees during those months. Hence, brood-rearing is checked, and very few, if any, young bees are hatched during this time.

So at the beginning of winter the colonies go into quarters, made up of old bees that are certain to die in large numbers with old-age before spring, leaving weak colonies to commence the season's work. It is therefore important to see that the necessary amount of breeding is kept up during the fall months to furnish young bees to stand the long confinement of winter. This is in the power of every bee-keeper, by simply feeding enough to stimulate brood-rearing, during the scarcity of natural stores.

It is also necessary that every colony should contain a good fertile queen. The queen is the life of the colony, and, however careful we have been in other particulars, if we have omitted this important part, it certainly will endanger the loss of the colony.

Every colony should have 25 or 30 pounds of good sealed honey to carry it through the winter, and if the bees lack the required amount, they should be fed. If the feeding is done in September, the weather being favorable, it will allow the bees to seal up their stores, which is very important, before going into winter quarters. It has been pretty generally settled by bee-keepers that granulated sugar is the only safe food for bees during winter. It is not advisable under any circumstances to attempt feeding honey or syrups of any kind to bees during cold weather; it will produce diarrhea, and increase the loss of the colony. Syrups made in the form of candy may be used, but must be given them during a warm day, when they are flying freely.

Out-door wintering in chaff hives is preferred by a great number of apiarists, though many winter their bees successfully in cellars. But no one can reasonably expect much profit from bees which are allowed to stand out in unprotected hives all winter. The work of placing in winter quarters should be done before steady cold weather sets in, and then they should be allowed to remain undisturbed. Stock of every kind should be excluded from the apiary at all times, but poultry may have the range of the apiary.

Bees need little attention during winter. At the approach of a warm day, see that the entrance to each hive is open, so that the bees can have free passage out and in. During cold weather it will do no harm if the entrance, or even the hives, are totally covered with snow; it serves as a protection.

Ohio.

For the American Bee Journal.

The Kentucky State Convention.

The Kentucky State Bee-Keepers' Society met in the Court House in Falmouth, Ky., on Oct. 18, 1887, at 10 a.m. President Rev. L. Johnson not being present, Mr. Peter McVean was called to the chair, and Alex. W. Stith, of Portland, Ky., was appointed Secretary *pro tem.*

After the transaction of the usual business of the society, the convention proceeded to elect the officers for the ensuing year, which resulted as follows: President, Alex W. Stith, of Portland; Recording Secretary, G. W. Demaree, of Christiansburg, and John S. Reese, of Winchester, Corresponding Secretary. Vice-Presidents were chosen for the following counties: Henry county, Dr. L. E. Brown; Kenton, Peter McVean; Shelby, E. Drane; Mason, W. C. Pelham; Boon, R. A. Connley; Gallatin, J. T. Connley; Grant, Mrs. Clay White; Harrison, T. W. Smith; Mercer, Egbert Salvisa; Clark, Mr. Green, of Winchester, Ky.; Scott, J. K. Northcut; and Fayette, Walter B. Downing.

Short speeches were made by Messrs. Stith, Thornton, and Demaree, on the subject of getting bees ready to gather the early honey harvest. Dr. Henry made extended remarks on the subject of adulterating honey. Mr. McVean thought that the danger to the business of bee-keeping, on account of the nefarious practice, so common a few years ago, of buying up and adulterating honey, was all past now. Mr. Demaree said that honey must be sold on the reputation of the producer.

The convention adjourned then for dinner.

AFTERNOON SESSION.

The convention was called to order by President Stith, and the names of the following persons were enrolled as members of the society: Thos. S. Tomlin, S. M. Blackburn, W. G. Gosney, R. M. Houston, Luther Bradford, B. L. Colvin, S. Taylor, and I. W. Wright.

The Question Box was then opened, and nearly every phase of bee-culture was discussed. Mr. Bagley gave his method of introducing queens, which was new to many of those present. He cages the queen with some of the bees belonging to the colony to which the queen is to be introduced, and after giving them a "big scare" by shaking them up, he introduces the queen, bees and all directly to the queenless colony.

Reports were made from several parts of Eastern and Central Kentucky, and the facts show that the honey crop was shorter the past season than at any time heretofore. But bees have gathered plenty of honey from goldenrod and the little white and purple asters for winter stores. On this account bee-keepers in those sections of the State are feeling very much encouraged.

Rev. L. Johnson, of Walton, Ky., formerly President of this society, sent a written report, giving a most encouraging account of the prosperity of bees in his part of the State. Since the fall rains revived vegetation, colonies that were near the starving point at the close of the summer drouth, have filled up their hives with choice honey from goldenrod and the several varieties of asters, and will go into winter quarters well supplied with stores.

G. W. Demaree, by request, addressed the assembly on the good work accomplished by the Kentucky Bee-Keepers' Society, and the future of bee-culture in our State. He pressed the fact that the members of this Society are peculiarly fitted to push forward and keep up this branch of husbandry, and if they fail on account of loss of interest in the good work, there will be none to take their place. Bee-culture demands more study and more skill than any other rural employment, and hence our ranks are not likely to swell to great dimensions. He showed that bee-culture is not necessarily a "little business." No honest and decent employment which pays well on the money invested and labor employed, can be "little" in any sense. What our State needs most now, is more "little successes" and less "big failures."

After a harmonious session, the convention adjourned to meet at a time and place to be fixed by the executive committee.

G. W. DEMAREE, *Sec.*

Gleanings.

Equalizing Prices for Honey.

DR. C. C. MILLER.

I am decidedly in favor of the publication of market reports. I am satisfied, however, that sometimes harm is done by them. I think they are often incorrect—I know they have been sometimes. At one time I took the pains to go to about every house where honey was wholesaled in Chicago, and I could not buy honey within several cents of the price quoted in the bee-papers and dailies. I went to the office of the leading daily which gave honey quotations, and asked why they did not give correct reports. They said they published what was given them. I showed them the statement of sales of my own honey by a commission house, and they said it was a revelation to them, as they had had no opportunity of looking "behind the scenes" prior to this, and immediately the quotations were changed a few cents higher.

With no thought of doing any great harm by it, the commission men sometimes report a lower figure than they are selling at, so that, when they make returns to their customers, the customers will be well satisfied when they see they are getting more than the market price according to the printed quotations. But as these printed quotations are often used as a help in fixing prices elsewhere, any other than a correct report may be mischievous.

Even if correct reports are given, an incorrect use of them is often made. Mr. Jones lives at such a distance from the nearest city market, that, after paying freight and commission, he receives net about 3 cents less than the price at which the honey is sold; so, if the price at the city market is 12 cents per pound, he receives 9 cents net, and will do better to sell at home for 9 cents. Taking this view of it, he settles upon the plan of fixing his price in all cases 3 cents below the city price. This may be all right, and it may be all wrong. If his crop of honey, together with that of his neighbors, is so large that some of it must be shipped to distant markets, his plan may be all right.

But suppose the crop is short, and Mr. Jones follows the same rule, selling at 9 cents because the city price is 12. The grocers sell out all of his honey, which he has sold to them at 9 cents, and then buy from the city, paying 12 cents and freight for it. If Mr. Jones had none they would pay 12 cents and freight, say 13 cents for all. Now, is there any reason why in this case he should not sell for 13 instead of 9 cents? The same rule holds in other things. Years ago, the farmers about Marengo shipped their grain to Chicago, and I could buy corn from them at less than the Chicago price; but of late, dairying is so extensive that more corn is consumed than raised, and I have to pay more than the Chicago price. So the prices for honey should be higher or lower than city prices, according to circumstances.

Marengo, δ Ills.

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Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16.—Western, at Kansas City, Mo.
J. A. Nelson, Sec., Muncie, Kans.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Nov. 19.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Legislation for Bee-Keepers.—Dr. C. C. Miller, Marengo, δ Ills., on Oct. 27, 1887, writes:

I was not a little surprised to see in the programme for the Chicago Convention, my name attached to the subject, "Legislation for Bee-Keepers." Bro. Hutchinson is, I suppose, responsible for it, but I do not want to scare any one away from what I hope will be a good convention, by the thought that I am anxious to take up a large amount of time with a subject so generally misunderstood, and when thus misunderstood so generally disliked. I have had my say in the matter; I think I am right, and trust to time and sober second-thought to bring others to the right view, rather than to take up the time of the convention.

I can imagine no more convenient arrangement than having the convention at the hotel, especially one so central as the "Commercial," and at the same time so good a hotel.

True Condition of the Bees.—J. M. Bailey, La Porte City, o→ Iowa, on Oct. 19, 1887, writes:

About Nov. 15, 1886, I put into a cellar 88 colonies of bees, and last spring I took out 87 colonies in good condition, being a loss of only one. During this season, however, they have not done so well. I have now only 62 colonies, a loss of 25, and they are generally in poor condition. In addition to this, I have realized no surplus honey, and will be compelled to feed considerably in order to preserve the bees now on hand. I think that it would be a good idea if all bee-keepers would report the true condition of their bees.

Results of the Season, etc.—W. H. Shaner, Leechburg, ⊙ Pa., on Oct. 24, 1887, writes:

I wintered 13 colonies on the summer stands packed in chaff; one-fourth came out in good condition, and the rest were very weak. I got 100 pounds of surplus, principally from a patch of Alsike clover. I could smell the bloom 8 rods from the patch. I sowed 3 pecks of Alsike in the spring, and I hope to make a better report next year. The drouth still continues. Three Italians outstripped the blacks by far. I got queens and Italianized all my colonies without losing a queen. I introduced five on Mr. Doolittle's plan, as given on page 309. I have fed 150 pounds of sugar for winter. I have a good cellar where potatoes and apples never freeze. Would you advise me to winter my bees in this cellar?

[Yes; if you can ventilate it properly, and can keep the temperature at 45°, it ought to be a good place for bees in winter.—ED.]

The Season's Results.—H. H. W. Stewart, Galt, ←o Ills., on Oct. 23, 1887, writes:

Last fall I put 91 colonies into winter quarters, and in the spring I had 60 of them left. I made 100 hives at $1 50 each, $150; spent 6 months taking care of the bees, at $30 per month, $180; fed 600 pounds of honey and sugar, $50; expectations, $400; total, $780. Increase: Two swarms, $5; Honey, $0; total, $5. Loss, $775. We must have a better season next year, or there will be one less bee-keeper.

Smart-Weed, Rag-Weed and Plantain.—E. W. Councilman, Newark, Valley, ♀ N. Y., on Oct. 8, 1887, asks the following questions:

1. What is the name of the specimen of a flower which I send. I noticed the bees working on it this fall quite briskly. 2. Does rag-wood and plantain yield honey? I have heard bee-men say that neither of them yielded honey, only pollen.

[1. The specimen is smart-weed or heart's-ease (*Polygonum Pennsylvanicum*), long celebrated as an excellent honey-plant.

2. Neither plantain nor rag-weed produce honey. The rule has no exception, that the flowers which are neither conspicuous nor fragrant have no nectar; at least no such exception is known to me.—T. J. BURRILL.]

Selected Honey.—Mrs. C. W. McKown, Gilson, ←o Ills., writes:

No doubt quite a number of suggestions have been made, regarding a new name for extracted honey, and among others permit me to suggest the term "selected" honey. This term itself signifies purity and excellence, as well as "extracted" or "drawn" from; and then, too, the word "selected" might possibly have a tendency toward suppressing the superstitious idea that exists in the minds of some people, with regard to the product being adulterated, and also add new tone and vigor to the sale of it.

Little Surplus Gathered.—Jesse Perry,⊙ Iowa, on Oct. 17, 1887, says:

I commenced the season with 37 colonies of bees, increased them by natural swarming to 45, and obtained 300 pounds of honey in one-pound sections, from basswood and sweet clover. The basswood bloomed some two weeks earlier than usual, and yielded fairly well for a few days; but the brood-chambers being empty of honey, I got but little surplus. My bees stored some honey from heart's-ease and goldenrod in September—enough for winter stores. They are in fair condition for winter, I think. I winter my bees on the summer stands.

Plenty of Honey for Winter.—Oscar M. Pierson, Tampico,~o Ills., on Oct. 25, 1887, says:

I commenced the season with 2 colonies, increased them to 7 by natural swarming, and have taken 35 pounds of comb honey in one-pound sections. All of my colonies have plenty to winter on. I shall winter them in a good, dry cellar.

Convention Notices.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

The following are the subjects for discussion, so far as has been determined upon:

Cost of the Production of Honey—J. H. Martin, Hartford, N. Y.

Controlling the Price of Honey—M. M. Baldridge, St. Charles, Ills.

Getting the Best Price for Honey—E. J. Oatman, Dundee, Ills.

Commission Men and the Honey Market—R. A. Burnett, Chicago, Ills.

Legislation for Bee-Keepers—Dr. C. C. Miller, Marengo, Ills.

Objects and Methods of a thorough Organization of the Bee-Keepers of America—Thomas G. Newman, Chicago, Ills.

Comb Foundation, its Manufacture and Use—C. P. Dadant, Hamilton, Ills.

Production of Extracted Honey for Table Use—T. F. Bingham, Abronia, Mich.

The Production of Comb Honey—W. Z. Hutchinson, Flint, Mich.

Production of Comb and Extracted Honey in the Same Apiary—J. A. Green, Dayton, Ill.

Out Apiaries—D. A. Jones, Beeton, Ont.

Foul Brood, How Shall we Treat It?—A. I. Root, Medina, Ohio.

Wintering Bees in the Northern States—R. L. Taylor, Lapeer, Mich.

Bee-Hives and Fixtures—James Heddon, Dowagiac, Mich.

Bee-Keeping alone, or with Other Pursuits; if the latter, in connection with what?—Eugene Secor, Forest City, Iowa.

Legs of the Bee—Prof. A. J. Cook, Agricultural College, Mich.

What is the Best Name for Extracted Honey?—Thomas G. Newman, Chicago, Ills.

W. Z. HUTCHINSON, *Sec.*

☞ The Western Bee-Keepers' Society will hold a meeting on Wednesday, Nov. 16, 1887, at the residence of Mr. Peter Otto, corner of Park and 25th Streets, Kansas City, Mo. Take the 18th Street horse-cars at 9th & Main Sts. for 18th & Brooklyn Sts., thence walk south to 25th St., and thence east one block to the house. We are sure of a cordial welcome from Mr. and Mrs. Otto, and expect a good meeting.

JAS. A. NELSON, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS.
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

California Excursions.

At frequent dates of each month, the Burlington Route, C. B. & Q. R. R., runs excursions to San Francisco, Los Angeles and San Diego, at greatly reduced rates of fare. By the "Burlington" one can have a choice of routes to California, as its lines from Chicago, Peoria and St. Louis extend to Denver, Council Bluffs, Omaha, Saint Joseph, Atchison and Kansas City. Should one desire to make the return trip via Portland, Oreg., they can continue their journey south or east from St. Paul or Minneapolis, over the Burlington Route, to Chicago, Peoria or St. Louis. For California excursion dates, rates, tickets or further information, apply to ticket agents of the C. B. & Q. or connecting railroads, or address Paul Morton, General Passenger and Ticket Agent, Chicago, Ills. 43A4t

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Receipts continue light, and prices tend higher.
Oct. 14. S. T. FISH & CO., 189 S. Water St,

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections or about, brings 18@20c., some fancy shipments are held at 22c.; 2-lb. sections, 16@18c. Dark honey is slow sale. Extracted, 7@10c.
BEESWAX,—22@23c. R. A. BURNETT,
Oct. 20. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections sells as high as 19c. A few lots are held at 20c. Demand increases as fruit becomes scarce.
BEESWAX.—23c.
Oct. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.: 2-lbs., 17@18c. White clover extracted, 8c.
BEESWAX.—25c.
Oct. 24. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 8@8c. Demand fair.
BEESWAX.—25 cts. per lb.
Oct. 22. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 6@6½c.; amber colored and candled, 5¼@5¾ cents. White to extra white comb, 15@17c.; and amber, 10@12½c. Supplies and demand are small.
BEESWAX.—17@21c. for good quality
Oct. 15. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.
BEESWAX.—19@22c.
Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.
BEESWAX.—No. 1, 22c.; No. 2, 18c.
Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.: 2-lbs glassed, 10c. Extracted, white, 9@10c.; dark, 6@7c. Demand good, market firm.
Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.
BEESWAX.—24@25c.
Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.
BEESWAX.—22@25c.
Oct. 26. A. V. BISHOP, 142 W. Water St.

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

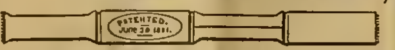
We Supply Chapman Honey-Plant seed at the following prices: One-half ounce, 50 cents; 1 ounce, $1; 2 ounces, $1.50; 4 ounces, $2; ½ pound, $3; 1 pound, $5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

FOR SALE.—134 Colonies of BEES in frame chaff hives, mostly Italians. Five tons of honey taken from them last season, and 6 tons this season—mostly comb honey. This is a fine locality, but want to sell as I am about to move out of the State.
Address, **G. C. SODEN, Agt.,**
44A1t CANANDAIGUA, N. Y.

J. FORNCROOK & CO.,
MANUFACTURERS OF THE
"BOSS" One-Piece SECTIONS,


PATENTED. June 28 1881.

Patented June 28, 1881.

WILL furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.
Watertown, Wis., Oct. 25, 1887.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
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The American Apiculturist
WITH SUPPLEMENT.
A full description of the
Bay-State Reversible Bee-Hive
in the November Number. COPIES FREE.
Address, **HENRY ALLEY,**
44Atf WENHAM, Essex Co., MASS.

GLASS PAILS
FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.
Prices are as follows:

To hold 1 pound of honey, per dozen, ... $1.60
" 2 pounds " " 2.00
" 3 " " " 2.50

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923 & 925 West Madison St., CHICAGO, ILL.

SUPPLY DEALERS

AND OTHERS should write to me for SPECIAL PRICES on **BEE-SUPPLIES** for this fall and winter.
☞ **A heavy Discount allowed.**
Address, A. F. STAUFFER,
44Ctf STERLING, ILLINOIS.

Friends, if you are in any way interested in
BEES OR HONEY
We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly,* to
A. I. ROOT, Medina, Ohio.

HEAD-QUARTERS IN THE SOUTH
FACTORY OF
BEE HIVES, &C.
Early Nuclei & Italian Queens.
☞ Ninth annual Catalogue now ready.
5Ctf **PAUL L. VIALLON,** Bayou Goula, La.

BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.
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JUST PUBLISHED,
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By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL Publisher, 69 Dearborn St., Chicago, Ill.
9Ctf

A NEW ENGINE.

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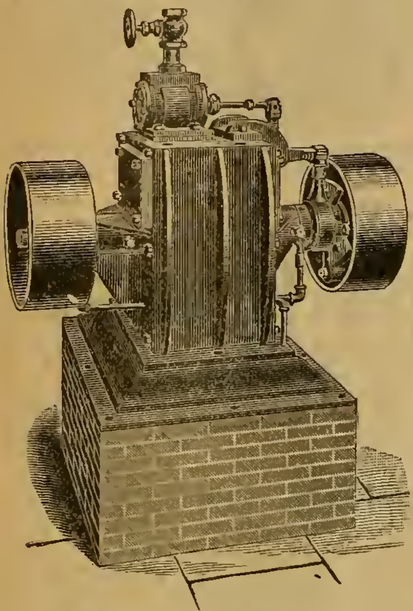
WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



No high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

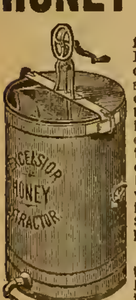
Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

☞ Send for a Circular. Address,

HENRY RICKEL, Pres.,
44Atf CEDAR RAPIDS, IOWA.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	$8 00
For 2 Langstroth "	10x18	"	8 00
For 3 " "	10x18	"	10 00
For 4 " "	10x18	"	14 00
For 2 frames of any size,	13x20	"	12 00
For 3 " "	13x20	"	12 00
For 4 " "	13x20	"	16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

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More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

W. Z. HUTCHINSON,

Flint, Genesee Co., Mich.,

Has published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

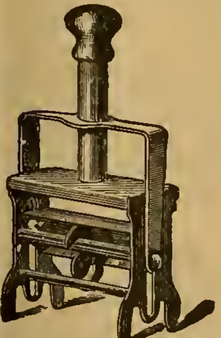
☞ If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

SELF-INKING RUBBER-STAMP.

2,000



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Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,

GEO. T. HAMMOND,
BROCKPORT, Monroe Co., N. Y. 26Etf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

Is published every week, at 10s. 10d. per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ A Liberal Discount to Dealers, by the Dozen or Hundred.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

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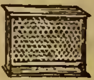
Patent Flat-Bottom Comb Foundation



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J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Bee-Keepers' Cards.

HEAD-QUARTERS!—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery. Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candles 15c.

Address **J. H. MARTIN,**
4Aly HARTFORD, Washington Co., N.Y.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Nov. 9, 1887. No. 45.

Lessons from the Ivy.—Mr. Eugene Secor, of Forest City, Iowa, sends us the following, about the lessons to be learned from the "Ivy :"

An *humble* thing is the Ivy-vine,
For it seeks the shadow of tree or wall ;
In silence grows,
Nor envy shows
By vain attempt to out-do or out-shine
The rugged support that prevents its fall.

A *truthful* thing is the Ivy-vine,
For it never loosens its faith-like hold.
Mid storms it clings,
Till sunshine brings
The brighter hope, the joy divine,
And turns its dull leaves from brown to gold.

A *loving* thing is the Ivy-vine,
Clinging by tendrils as with hooks of steel,
Constant and true
Its whole life through,
Reaching its arms to grasp and entwine
All that its tender fingers can feel.

These lessons learn from the Ivy-vine :
The help that we need is more than we give ;
And needing much
Of helpful touch
Should make us humble and benign.
And teach us to love and in faith to live.

◆

The Editor is still unable to attend to business. His convalescence is very slow, and has been retarded by a relapse. It is to be hoped that he will be able to atttend the Convention next week, but as yet it is quite uncertain.

◆

Round Trip Tickets (that is, a single ticket to Chicago and return to the place of starting) can be purchased at any station, on any road leading to Chicago at one and one-fifth fare for the round trip, and will be good for six days. This is the arrangement, as we understand it, for the Fat Stock Show. These tickets can be bought at your railroad station. It may be well to ask your Station Agent about it in advance.

◆

"**How do You** pronounce s-t-i-n-g-y ?" asked Prof. Comstock. The smart bad boy nearest the foot of the class stood up and said, " It depends a great deal whether the word is applied to a man or a bee ; one is sting-y, and the other is stin-gy. " Go to the head, young fellow."

Bee-Keeping in Norway.—The following is an editorial in the *Canadian Honey Producer* for November. When Mr. Young was here we were exceedingly busy, and did not have an opportunity to ask as many questions about bee-keeping in Norway as we desired, and as Mr. Young promised us to call on his return, we expected to do so then. We had a letter from him afterwards saying that he could not arrange matters to call again, and so we were deprived of much of his visit. The subjoined account will be read with interest :

> We had a very pleasant and instructive conversation with Mr. Young, and of course made all possible inquiries about the state of bee keeping in Norway.
>
> Bees can be kept very well as far north as Drontheim. In Norway, as here in Canada, there is no method by which the number of colonies can be ascertained, but the number of colonies kept are estimated at about 40,000 : of these about 2,000 are kept in the movable-frame hive, the balance in straw skeps.
>
> The government of Norway realize the importance of apiculture as an industry, and have sent Mr. Young, at their expense, to Canada and the United States, to promote the interests of the bee keepers.
>
> Wintering is done very successfully in some of the old straw-skep hives. Many think the bees in the movable-frame hive do not winter as well, but such is not the case ; on the contrary, the honey taken by means of the movable frame hive is mostly extracted On account of so few frame hives, and but little comb foundation being used, the average yield per colony for the country is not great, but he thinks if properly conducted it would be 70 pounds to 100 pounds per colony.
>
> The chief sources of honey are clover, basswood and heather. The clover is mostly Alsike : there is but little white
>
> The Norwegian Bee-Keepers' Association has some 1,500 members, has been in existence three years, the bee-journal 2½ years. Every member gets this journal free, and the journal is the property of the association, and under their control ; and one having goods to advertise, can do so in the advertising columns. Fifty cents entitles a bee-keeper to membership and the paper, which is monthly. Any one not in the country pays $1 ; this extra charge being made to cover the extra postage. Mr. Young also very kindly presented us with a cop of his book on bee-keeping. He may justly be called the father of advanced bee-keeping in Norway.

◆

The Bee-Keepers' Union is urged to take an appeal from the court presided over by Judge Boardman in New York, in the case of Mr. Rich, mentioned on pages 659 and 675. Mr. George E. Hilton, President of the Michigan State Bee-Keepers' Association, writes as follows :

> No, sir ; the bees must not be compared with pig-stys or slaughter-pens, and the case must go to the higher courts. Shame on Judge Boardman ! Bee-Keepers of America rally around the "Union." Give it your support, if you have not already done so. The Manager may draw on me at any time for $5 in addition, if needed.

◆

The Illustrated London News for Oct. 29, contains a colored portrait of Prince Bismarck, and pictures of Nizam of Hyderbad, two pages devoted to illustrations of the state of Ireland, another page of troops in Burmah, one of border sketches in Kelso, one of Bristol Cathedral, one of the death of Cæsar, and a most attractive picture of a little girl and a dog, entitled, "Speak !" The reading matter is as interesting and complete as ever, while the price for all is only 10 cents. All newsdealers have it, and the New York office is in the Potter Building.

How Bees Make Cells.—In *Murray's Magazine* we find the following explanation of the geometrical forms which the cells of a honey-comb assume :

> Recent measurements and observations have tended to dissipate the cell myth, and to show not only that the honey-comb is far from regular, but that such regularity as it has is due merely to mechanical conditions.
>
> Mr. Frank Cheshire tells us in his recent volume, that careful measurements of the finest pieces of comb, built with every advantage for securing regularity, show that, so far from every cell being geometrically accurate, it is difficult to find a hexagon presenting errors of less than three or four degrees in its angles. On the other hand, there is a growing tendency to accept a modification of Buffon's explanation of the origin of cell structure. Buffon attributed the regularity of the cells to mutual pressure ; in illustration whereof he packed a closed vessel with dried peas and filled up the interstices with water. The peas, which were thus caused to swell, assumed, under the pressure which resulted, the form of more or less accurate geometrical figures.
>
> Perhaps a still better illustration of this principle of mutual inter-action is seen in soap bubbles. If a little soapy water is placed in the bottom of a tumbler and air be blown into the water through a tube, until the upper part of the glass is full of bubbles, the hexagonal form which these bubbles assume under mutual pressure, and the trilateral pyramids at their bases, will be readily seen. Not that these geometrical figures are the same as those which the wax assumes, but they illustrate the principle. For, at the temperature of the hive, the wax, pared thin by the smooth-edged jaws of the workers, has all the plasticity of a fluid membrane. The bee has indeed to avoid the danger of paring away too far, and thus making a hole through the wall. But even here it may be aided by mechanical conditions.
>
> If we take a thin piece of soap and pare away one face with the blade of a pocket-knife, we shall soon form a transparent patch where the soap is very thin. But if we continue to pare we do not cut through the soap at this point ; but, for a time at least, we merely enlarge the area of the transparent patch. The thin film of soap yields at this point, and the stress of the blade falls on thicker and less-yielding edges. Some such mechanical yielding of the wax may guide the bee in its work.

◆

The Result of there being no bees to fertilize the clover, is thus commented upon in *Science for All* (English) for November :

> Bees are necessary to the fertilization of some kinds of clover. This fact the New Zealand government have discovered to their great dismay, for the Dutch clover in that colony will not produce sufficient seed, owing to the absence of the particular bee to fertilize it. Again, it has been found that twenty heads of Dutch clover yielded 2,290 seeds ; but twenty other heads, protected from bees, yielded none. In like manner, a hundred heads of red clover produced 2,700 seeds ; but the same number protected from the visits of insects were all sterile. Hence, it may be logically inferred that as no other insects visit the clover, were the bumble-bee to become extinct in England, the plant which is dependent upon it for existence, would either become extinct or at least comparatively rare.

◆

It is a Mistake to visit the bees too often during the winter. It is apt to disturb them, they become restless, and sometimes discharge their feces, and by this means produce a stench that is enough to destroy them. It is better to have their winter quarters so constructed that their condition can be ascertained without disturbing them. —*Exchange.*

◆

The Club List for 1888, of E. H. Cook, Andover, Conn., is on our desk.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Packing Bees for Wintering.

Query 491.—1. My bees are in Langstroth hives with cottage roof and a 1½-inch hole in each end, and wire-cloth over the holes. Would a 5-inch box with cheese-cloth bottom filled with dry forest leaves be good packing for winter? 2. Would 1,000 pounds of dry prairie hay, stacked on each hive, leaving the hive-entrance open, be a good protection for winter?—Clarksville, Mo.

1. Yes. 2. Yes, if kept dry.—J. P. H. BROWN.

1. Yes. 2. Yes; less will do.—DADANT & SON.

1. Yes. 2. I think that 100 pounds of dry prairie hay would be sufficient in Missouri for each hive.—G. L. TINKER.

I should say yes to both questions. In Missouri I dare say this would be sufficient. Further north I should prefer a proper cellar.—A. J. COOK.

1. I should prefer dry, fine sawdust, to leaves. 2. I should much prefer a chaff hive, and I think it would be much cheaper.—G. M. DOOLITTLE.

1. Yes, it is very good as far as it goes. 2. I would be afraid to use it, from what I have seen. I would prefer about 4 inches of chaff or forest leaves, packed in a case all around the hives.—H. D. CUTTING.

I should prefer chaff or sawdust over the bees, yes, or even the dry hay, to leaves; the hay would be good protection, but, my! half a ton to a hive!! Hay must be cheaper in Missouri than in Michigan.—W. Z. HUTCHINSON.

1. Yes, if you had a good, tight board-cover over the 5-inch box. 2. Yes, if the hay was stacked on in such a way that it would turn water. I would prefer to have it cover the entrance, and all in such a way that I could remove it from the entrance at will.—JAMES HEDDON.

1. It answers well in this climate. 2. Try the experiment on a few hives and report for the benefit of your brethren. I feel quite sure that bees would suffer from dampness under a body of straw or hay in the way you propose; but I might be mistaken in this conclusion.—G. W. DEMAREE.

1. Yes, provided about 1 inch of space is left between the tops of the frames and the cheese-cloth. 2. I have never found protection of the kind any benefit. It may do no harm; I do not think that it will do any good. The above is my opinion only, but based on results growing out of 17 years of successful wintering of bees on the summer stands.—J. E. POND.

Yes; to both questions, providing that the hay must be dry and placed in such a manner that it will let the rain run off without much soaking in. Dry leaves or sawdust would also do for a location in Missouri—but for the more northern localities a good cellar would be more reliable, one year with another.—THE EDITOR.

Fastenings for Square-Joint Hives.

Query 492.—When the square joint is used, in place of the beveled or rabbeted joint, for parts of hives whose edges fit flush, are fastenings of any sort required to keep the upper stories or cap in place? If so, what kind?—Goshen, N. Y.

No.—G. L. TINKER.

No.—H. D. CUTTING.

No; none whatever.—JAMES HEDDON.

I have never used any fastenings.—G. M. DOOLITTLE.

Not if there is any propolis about the hive.—DADANT & SON.

I have never used any fastenings; the bees soon attend to that.—W. Z. HUTCHINSON.

I do not use, nor want the square-joint in this climate (Georgia).—J. P. H. BROWN.

No. I have now used such for years with no trouble. Even my shade-boards, which, of course, cannot be glued by bees, need no weight to hold them down.—A. J. COOK.

I use a fastening on both square and beveled joints, consisting of a hook on the centre of each side, playing under the head of a screw driven nearly in, for the hook to catch on.—J. E. POND.

I use none, and none is ever needed for the upper story. On rare occasions, with very high winds, the covers are blown off, and if I knew of a very cheap and *quickly handled* fastening, I might use one for the covers, but so far I have had none.—C. C. MILLER.

I have used the square-joint plan more or less for over 25 years, and I have never seen any need of a device to hold the surplus cases in place. The bees will glue the cracks made by adjusting one department of the hive on the other, no matter how it is done; and as soon as the edges of the cases are propolized, they will stick fast when put in position, and the bees will make the connection air and water tight as soon as possible. There is nothing like the square-joint plan for easy and rapid handling.—G. W. DEMAREE.

A rabbeted joint is preferable for many reasons; but where a square-joint is used there is really no necessity for a fastening, except during high winds, and in a locality that is unprotected, and then usually only for the covers. When such fastenings are used a small hook turning on a screw, with another screw on which to hook, would be quite sufficient.—THE EDITOR.

Convention Notices.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

The following are the subjects for discussion, so far as has been determined upon:

Cost of the Production of Honey—J. H. Martin, Hartford, N. Y.
Controlling the Price of Honey—M. M. Baldridge, St. Charles, Ills.
Getting the Best Price for Honey—E. J. Oatman, Dundee, Ills.
Commission Men and the Honey Market—R. A. Burnett, Chicago, Ills.
Legislation for Bee-Keepers—Dr. C. C. Miller, Marengo, Ills.
Objects and Methods of a thorough Organization of the Bee-Keepers of America—Thomas G. Newman, Chicago, Ills.
Comb Foundation, its Manufacture and Use—C. P. Dadant, Hamilton, Ills.
Production of Extracted Honey for Table Use—T. F. Bingham, Abronia, Mich.
The Production of Comb Honey—W. Z. Hutchinson, Flint, Mich.
Production of Comb and Extracted Honey in the Same Apiary—J. A. Green, Dayton, Ill.
Out Apiaries—D. A. Jones, Beeton, Ont.
Foul Brood, How Shall we Treat It?—A. I. Root, Medina, Ohio.
Wintering Bees in the Northern States—R. L. Taylor, Lapeer, Mich.
Bee-Hives and Fixtures—James Heddon, Dowagiac, Mich.
Bee-Keeping alone, or with Other Pursuits; if the latter, in connection with what?—Eugene Secor, Forest City, Iowa.
Legs of the Bee—Prof. A. J. Cook, Agricultural College, Mich.
What is the Best Name for Extracted Honey?—Thomas G. Newman, Chicago, Ills.

W. Z. HUTCHINSON, *Sec.*

☞ The Western Bee-Keepers' Society will hold a meeting on Wednesday, Nov. 16, 1887, at the residence of Mr. Peter Otto, corner of Park and 25th Streets, Kansas City, Mo. Take the 18th Street horse-cars at 9th & Main Sts. for 18th & Brooklyn Sts., thence walk south to 25th St., and thence east one block to the house. We are sure of a cordial welcome from Mr. and Mrs. Otto, and expect a good meeting. JAS. A. NELSON, *Sec.*

☞ The Marshall County Bee-Keepers' Association will meet in the Court House at Marshalltown, Iowa, on Saturday, Nov. 19, 1887, at 10:30 a. m. and 1 p m. Subjects for discussion: "Winter Care of an Apiary," and "How to Improve our Society." A cordial invitation is extended to every bee-keeper in this and adjoining counties.

J. W. SANDERS, *Sec.*

☞ The Pike County Bee-Keepers' Society and the Illinois Central Bee-Keepers' Society will meet in joint convention at the New Pittsfield Hotel, in Pittsfield, Ills., on Friday and Saturday, Nov. 25 and 26, 1887. Reduced rates will be given at the Hotel. All are invited to attend.

W. T. F. PETTY, *Pres.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited. H. M. SEELEY, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; ⊶ east; ⊷ west; and this ♂ northeast: ⊸ northwest: ⊶ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal

Basswood vs. Linden Honey.

DR. A. B. MASON.

In the last number of the AMERICAN BEE JOURNAL, I commenced a review of some of the statements made under the above heading by Mr. S. T. Pettit, as there referred to, and now I will review what he says on page 23, of the present volume of the AMERICAN BEE JOURNAL.

He starts out by saying that, "on page 805 of the AMERICAN BEE JOURNAL for 1886......Dr. A. B. Mason complains that I take the ground in the *Canadian Bee Journal*, that Canadian basswood honey is superior to United States basswood honey." By referring to page 805 as above, it will be seen that I am not reported as making such a statement or complaint, and it seems that no one else is so reported. "A guilty conscience needs no accusing." He then says: "The report reads as follows: The Doctor thought it perfectly right to make Canadian articles distinctively Canadian, but it should not be done by casting unwarranted stigmas upon *our* productions. We should not try to elevate ourselves by pulling down others." It does not appear in the above report that I complained of any of Mr. Pettit's statements.

He then says: "Most certainly, I fully agree with the Doctor, that we should not cast 'unwarranted stigmas,' upon the productions of others, 'nor try to elevate ourselves by pulling down others.'"

If such an assertion as the following, which Mr. Pettit made on page 23, when untrue, is not casting "unwarranted stigmas," I should be pleased to know what it is doing! He says: "I confess that I am not a little surprised that any one, especially Dr. Mason, should disagree with me in this matter." It is a very easy matter for any one at all posted in regard to the quality, etc., of the basswood honey in Canada and the United States, to disagree with the assertion that Canadian basswood honey "is superior to American basswood honey," as stated by him.

He says: "I am fully persuaded that if the Doctor will take the trouble to get average samples of basswood honey from the different points in the United States, especially from near the southern limit at which this tree produces honey, and compare them with Canadian linden honey, that he will be the first to acknowledge the superiority of Canadian linden honey." If I should make such an acknowledgement, I probably would be among "the first" to do so.

As stated in my previous article on this subject, I acted upon the above suggestion and wrote to well-known bee-keepers in the South, and sent to each one a sample of basswood honey, and asked to have it compared with the basswood or linden honey produced in their locality or State, and send me a statement as to its *color* and *flavor* when compared with white clover and other light-colored honey," and also to send a sample of their basswood or linden honey. I received answers to all my letters except those sent to Messrs. P. L. Viallon, of Louisiana, B. F. Carroll, of Texas, and Joseph Hatch, of New Mexico; and nearly all sent samples of honey, but not one had or could get basswood honey, except G. W. Demaree, of Kentucky, and John A. Buchanan, of West Virginia.

The sample of honey which I sent was gathered within four miles of Toledo, O., and was taken from the same that I exhibited a sample of at the last Michigan State Bee-Keepers' Convention, and of which Mr. Macpherson, of the *Canadian Bee Journal*, who was present, said: "It is as nice as Canadian basswood honey." Perhaps he ought to have said "Canadian linden," but he may have thought that we "sinners" (as an Englishman calls us in the *Canadian Bee Journal*) would not know what kind of honey he referred to. And Mr. T. F. Bingham, of Michigan, than whom I know of no one better qualified to judge in regard to quality, flavor, and aroma in honey, said: "It is good enough for any one."

G. W. Demaree, of Kentucky, says: "The sample you sent as basswood (linden) honey belongs to what we call light-colored honey. There are so few linden trees that have escaped the ax here, that I could not get you a pure sample of linden honey. We have always classed basswood (linden) honey with the light-colored honeys of this State. Locust, clovers, and linden give light-colored or white honey."

J. M. Jenkins, of Alabama, says: "I think the sample superb; the best basswood I ever saw."

E. M. Hayhurst, of Missouri, says: "The sample of basswood honey you sent me I should pronounce to be a first-class article, being well ripened. Our basswood has a slightly more greenish tinge."

John A. Buchanan, of West Virginia, says: "The basswood honey that we get here differs in no way from the sample you sent me. Our basswood honey is one or two shades lighter in color than white clover honey. It is also of good body and flavor."

A Miss Adams, living in Florida, whose father lives a few miles from me, recently called at my house, and she said: "There are basswood trees in some parts of the State, and the honey produced by them is just as clear and fine as the honey produced by them in the Northern States."

Jno. Y. Detwiler, also of Florida, writes: "Mr. Pettit is evidently laboring under a mistake somewhere, if he classes basswood with buckwheat honey, as the latter is much inferior in color and flavor."

In none of the other States to which I have written, is linden honey produced, except in small quantities, and then while other honey-producing plants are in bloom, but it is always classed with light-colored honey.

I lived one summer at Cincinnati, and for several years 80 miles north of there, and was engaged in bee-keeping, and I certainly ought to know something about basswood honey near "the southern border."

Will such testimony as the above induce any one to "acknowledge the superiority of Canadian linden" (formerly basswood) "honey?" I "trow" not.

Mr. Pettit says: "Before taking this ground, I took a great deal of pains to understand the matter, and consequently I feel quite solid in the positon I have taken." If the evidence which I have collected and given above in relation to the quality of United States basswood honey, does not enlighten such of our Canadian friends as have been led to believe that their basswood honey is better than that produced in the United States, nor affect Mr. Pettit's *solidity*, I hope some one will get up a small earthquake and shake "the whole batch of them," "Managing Committee" and all, out of that "Colonial" rut, so that the warming and genial influences of the gentle southern breezes will oblige them to loosen up that cloak of "I am better than thou," and lead them to exclaim, as I presume they feel, "No pent up Utica bounds our powers; the whole unbounded universe is ours."

Mr. Pettit's next statement, when untangled a little, completely "wipes out" all his assertions in regard to the superiority of Canadian honey. He says: "Without a question, basswood honey taken in the United States in our latitude (when the bees gather it under favorable circumstances, that is, not gathering at the same time inferior honey from other sources), the article is of the very best quality, and quite equal to Canadian honey." Now just leave out of the above sentence, what I have enclosed in the parenthesis, and Mr. Pettit has knocked the head out of the barrel he has been standing on while crowing, and is in about the same fix that "Sockery" was in trying to set the "plue hen." That enclosed in the parenthesis has nothing to do in the matter. Mr. Pettit has all along been talking about "basswood" honey, and now is "kinder mixing things," or rather several kinds of United States honey, and calling the conglomeration "basswood honey." Well! "did you ever?" I guess not. Perhaps that is the kind of basswood honey he has accused the Messrs. Muth with dealing in, but I do not believe that they deal in that way.

So far as my information goes, "inferior honey from other sources" is not generally gathered to any considerable extent while basswood honey is being gathered in localities where much of the basswood honey is produced.

As I have shown in this article that the basswood and linden honey produced in the Southern States is as good in every way as that produced in the Northern States; and in my previous article, that the Northern States "produce just as fine basswood honey" as that produced in Canada, it seems to me that the "Managing Committee" were not posted in regard to the quality of the "fine, richly-flavored" United States basswood and linden honey, or were dishonestly trying to reap some, if not all, of the benefits of the successful efforts already put forth by the "Yankees" to make a market for United States honey in England; and I have no doubt but the misrepresentations made, have, in a measure, accomplished the desired results.

Here is another fallacy: "But it should be kept in mind that this strip or belt bears but a small proportion to that of the whole of the United States. In writing the article complained of, I referred to the United States as a whole." Yes; "the United States as a whole." Well, "the United States as a whole," as I have shown, does not produce basswood or linden honey. (Some parts produce basswood, some linden, and some neither.) As near as I have been able to learn, about latitude 38° is near "the distinctive southern limit" of the basswood and linden honey production, and on the Pacific Coast the southern limit is several degrees farther north.

Wm. Muth-Rasmussen, of California, says: "There is no basswood in this locality, and as far as I know, none in California."

E. A. Moore, of Nevada, writes: "In this State, nor on this coast, do I think you will find any basswood, and, of course, no basswood honey."

Now, about 42° is the southern limit of Canadian honey production, and 49° the northern limit of United States honey production, except what is produced in Alaska. (We "Yankees" are so big hearted and sympathetic, that we may some day be obliged to extend our nothern limit several degrees beyond 49°, but I hope not, for we are happy the way it is.) This gives a "strip or belt" of 4° of basswood and linden honey-producing territory south of the Southern Canadian limit, and "a strip or belt" of 7° north of the Southern Canadian limit. So we see that there is nearly twice as wide a strip north of the Southern Canadian limit, as there is south of it, and I have yet to learn that that produced at the southern limit is inferior to that produced at the northern limit.

Here is an evidently truthful assertion, and although some other quotations I have made *may* have been as honestly given, I am sorry to be obliged to believe they are not as truthful as this: "Canadians would be very sorry indeed to have their fine, bright, sparkling linden honey classed with late, dark honey, and the price ruled down to that article." I do not doubt it at all, and I believe the bee-keepers on "this side of the line" feel just the same about the "fine, bright, sparkling" basswood and linden honey produced in the United States, and will not submit to our Canadian friends (no, *neighbors*, for *friends* do not deliberately try to injure each other), classing it with "late, dark honey," without a most vigorous protest.

Auburndale, O.

Selected from a Sermon.

Forbidden Honey Ate by Jonathan.

REV. T. DEWITT TALMAGE, D. D.

"Forbidden Honey" was the subject of Dr. Talmage's recent sermon in the Brooklyn Tabernacle. His text was a portion of the forty-third verse of the fourteenth chapter of First Samuel: "I did but taste a little honey with the end of the rod that was in my hand, and lo! I must die." From it we re-produce the following points:

The honey-bee is a most ingenious architect, a Christopher Wren among insects, a geometer drawing hexagons and pentagons, a free-booter robbing the fields of pollen and aroma, a wondrous creature of God, whose biography, written by Huber and Swammerdam, is an enchantment for any lover of nature. Virgil celebrated the bee in his fable of Aristæus, and Moses and Samuel, and David, and Solomon, and Jeremiah, and Ezekiel and St. John used the delicacies of bee production as a Bible symbol.

A miracle of formation is the bee; five eyes, two tongues, the outer having a sheath of protection, hair on all sides of its tiny body to brush up the particles of flowers; its flight so straight that all the world knows of "the bee-line." The honey-comb is a palace such as no one but God could plan and the honey-bee construct; its cells sometimes a dormitory, sometimes a store-house, and sometimes a cemetery. These winged toilers first make cups of wax, and by their antennæ, which are to them hammer, chisel, square and plumb line, fashion them for use. Two and two, these workers shape the wall. If an accident happens they put up buttresses or extra beams to remedy the damage.

When about the year 1776 an insect, before unknown, in the night-time attacked the bee-hives all over Europe, and the men who owned them were in vain trying to plan something to keep out the invader that was the terror of the bees of the continent, it was found that everywhere the bees had arranged for their own protection, and built before their honey-combs an especial wall of wax, with port-holes through which the bees might go to and fro, but not large enough to admit the winged combatant, called the Sphinx Atropos.

Do you know that the swarming of the bees is divinely directed? The mother-bee follows the bees, and all alight on the branch of a tree, and cling to each other and hold on until the return of a committee of two or three that have explored the region and found the hollow of a tree or rock not far off from a stream of water, and they have set up a new colony and ply their aromatic industries, and give themselves to the gathering of the sacharine edible. But who can tell the chemistry of that mixture of sweetness, part of it the very life of the bee, and part of it the life of the fields?

Plenty of this luscious product was hanging in the woods of Beth-aven during the time of Saul and Jonathan. Their army was in pursuit of an enemy that by God's command must be exterminated. The soldiery were positively forbidden to stop to eat anything until the work was done. If they disobeyed they were accused. Coming through the woods they found a place where the bees had been busy, a great honey store; honey gathered in the hollow of the trees until it had overflowed upon the ground in great profusion of sweetness. All the army obeyed orders and touched it not, save Jonathan, and he, not knowing the military order about abstinence, dipped the end of a stick he had in his hand into the liquid, and as (yellow and brown, and tempting) it glowed on the end of a stick, he put it to his mouth and ate the honey. Judgment fell upon him, and but for special intervention he would have been slain. In my text Jonathan announces his awful mistake: "I did but taste a little honey with the end of the rod that was in my hand, and, lo, I must die." Alas, what multitudes of people in all ages have been damaged by forbidden honey, by which I mean "temptation," delicious and attractive, but damaging and destructive.

Literature, fascinating but deathful, comes in this category. Where one good, honest, healthful book is read now, there are one hundred made up of rhetorical trash consumed with avidity.

The devil does not own all the honey. There is a wealth of good books coming forth from our publishing houses that leaves no excuse for the choice of that which is debauching to body, mind and soul. That young man or young woman can by the right literary and moral improvement of the spare ten minutes here or there in every day, rise head and shoulders in prosperity, and character and influence above the loungers who read nothing, or read that which be-dwarfs. See all the forests of good American literature dripping with honey. Why pick up the honey-combs that have in them the fiery bees which will sting you with an eternal poison while you taste it? One book may for you or me decide every thing for this world or the next.

It was a turning point with me, when in Wynkoop's book-store, Syracuse, one day I picked up a book called "The Beauties of Ruskin." It was only a book of extracts, but it was all pure honey, and I was not satisfied until I had purchased all his works, at that time expensive beyond an easy capacity to own them, and what a heaven I went through in reading his "Seven Lamps of Architecture," and his "Stones of Venice," it is impossible for me to describe, except by saying that it gave me a rapture for good books, and an everlasting disgust for decrepit or immoral books, that will last me while my immortal soul lasts. All around the church and the world to-day there are "busy hives of intelligence" occupied by authors and authoresses, from whose pens dip a distillation which is the very nectar of Heaven, and why will you thrust your rod of inquisitiveness into the deathful saccharine of perdition?

The best honey is not like that which Jonathan took on the end of the rod and brought to his lip, but that which God puts on the banqueting table of Mercy, at which we are all invited to sit.

I was reading of a boy among the mountains of Switzerland ascending a dangerous place with his father and the guides. The boy stopped on the edge of the cliff and said: "There is a flower I mean to get." "Come away from there," said the father, "you will fall off." "No," said he, "I must get that beautiful flower," and the guides rushed toward him to pull him back, when they heard him say: "I almost have it," as he fell 2,000 feet. Birds of prey were seen a few days after, circling through the air and lowering gradually to the place where the corpse lay. Why seek flowers off the edge of a precipice, when you may walk knee-deep amid the full blooms of the very Paradise of God? When a man may sit at a King's banquet, why will he go down the steps and contend for the gristle and bones of a hound's kennel?

"Sweeter than honey and the honeycomb," says David, "is the truth of God." "With honey out of the rock would I have satisfied thee," says God to the recreant. Here is honey gathered from the blossoms of trees of life, and with a rod made out of the wood of the cross I dip it up for all your souls.

For the American Bee Journal.

Starting Right in Bee-Keeping, etc.

ED. S. EDEN.

"Purchase 1 or 2 colonies of black or hybrid bees, and then Italianize them afterwards," is the advice often given to those about starting an apiary. A person that would advise those intending to go into stock raising, to purchase an inferior grade of cattle, and then to improve the stock afterwards, would certainly be laughed at by every intelligent stock-raiser in the country. It is the same in bees. If we admit that the Italians are the best, all things considered, what advantage would there be in purchasing that which is inferior?

Some claim that the experience of Italianizing is worth considerable to the beginner. But it will be found that the beginner will have sufficient to perplex him without inviting still more difficulties. His fund of knowledge in the business is small, consequently he should avoid those unnecessary things where there is a possibility of a failure. How many experienced bee-keepers are to-day annoyed at themselves for allowing an inferior strain to enter their yards? I fear there are a great many.

The beginner should practice vigilance against everything that is not of the best. It is generally admitted that the Italians are more prolific than the blacks; if this is true, and I think it is, is this not sufficient of itself to warrant their adoption at the first? I find that strength of colony is the main pillar to bee-keeping, and a goal that every bee-keeper should strive to attain.

CLIPPING THE QUEEN'S WING.

This is somewhat of a delicate job to those of little experience. It is usually advised to take the queen between the thumb and forefinger of the left hand, and then to perform the operation. But I have found in performing the operation in this way, that there is a risk of injuring the queen, or having her "balled" by the bees.

There is a plan practiced by some of the older bee-keepers here, which I think is a far better way to perform the operation. The queen is not taken off the frame at all, but the wing is clipped while moving up the frame, that is, from the bottom to the top. The frame is swung on a stand for the purpose, or held by a second person. With one hand take the queen by the wing, and cut of the amount desired. A very slender pair of scissors is preferred.

In clipping the wing while the queen is moving up the frame, one is not so apt to injure her abdomen, or dislodge her from the frame. The risk of "balling" is totally avoided, as the queen is not touched—only that portion of the wing that is cut off.

Eastwood, Ont.

[The advice to beginners to get black bees is pernicious. To clip the wing of the queen as you suggest is all right, if care is taken not to cut off a leg at the same time.—ED.]

Seed-Time and Harvest.

Rearing and Introducing Queens.

JAMES HEDDON.

Before giving a detailed outline of my preferred method of queen-rearing, one which I am now practicing with very satisfactory success, I wish to again call attention to the important truth, that in apiculture as well as other lines of culture, art, if properly applied, may excel nature. I believe we get better queens, and more of them, by the following process, than Nature gives us through her system of natural swarming. Once I could hardly be made to believe this, but experience has forced me to recognize the fact. I proceed to rear queens as follows:

First, I select the colony that I wish to rear from. Its bees must have proven themselves to be excellent honey-gatherers, good comb-builders, and well-behaved; adhering well to their combs when they are handled. Their queen must never be less than one year old, and such a queen, producing bees as described, is a "tested queen" with me. When I am ready to begin operations I select one or two new empty combs, and insert them near the centre of the broodnest of the selected colony. On the fourth day after this insertion, I examine them, and almost without exception I find them containing eggs, and just hatching larvæ. If not, I leave them until I find it so. I now remove them, filling their place with other combs.

I now look these two combs over, and wherever I find larvæ just hatched, I break down the partitions between the cells containing them and those just below, by putting the point of a large blade into the chosen cell, about ¼ of an inch, and pressing downward as I withdraw it. I usually select 10 or 20 such cells on each comb, and then insert these two combs in a colony prepared as follows:

Select a colony of average strength, with bees of all ages, in average normal quantities, and deprive them of their queen and all their brood, both of which may be profitably placed in other colonies, as a rule. If these bees are German, or part German, they are just so much better as queen-rearers. If there is little or no honey-flow, contract the hive to five Langstroth combs, or one section of my new hive. If the former, put in the "fillers." Put in two combs of eggs in the centre, and a comb containing some honey and bee-bread on each side of them, and fill up with empty combs. If there is a honey-flow, fill the whole Langstroth hive with combs, or use a second section, or super, on my new hive. Close the hive, and queen-cell building will at once begin.

Twenty-four hours later, open the hive, and break down some more cells, where the eggs have hatched since you was last there. On the following day, repeat cell breaking, and from 40 to 75 large, perfect queen-cells will be built by this colony. The first of these cells may be expected to hatch 16 days after being placed with the cell-building colony. About two days before this, and after all the cells are capped, I remove these two combs to the lamp-nursery, in which I place them, keeping the temperature therein at 85° to 90° Fahr.

THE LAMP-NURSERY.

For the benefit of those who may never have seen the lamp-nursery, I will say that it consists of an open-top tin box, double all around, including the bottom, and the 1½-inch space is filled with water. It has a rabbet at the top, and is of the interior size of the 10-frame Langstroth hive. I place it on an open top box, made to fit it, and place the lamp below it, adjusting the blaze until the proper temperature in the "nursery" is reached, then insert the two combs, when it is covered with a board or carpet.

I use the nursery in my apiary cellar, and when the proper nursery temperature is once reached, I am thus enabled to hold it within one degree all the 24 hours, day after day and week after week. Many would think that the proper temperature to keep, would be that kept in a colony while rearing and hatching queens. Careful observation and experimenting has taught me that there is a great variation of the temperature in queen-rearing colonies, varying with different colonies, which should be shaded from the sun's rays.

Form these nuclei in the forenoon, keeping them confined until about sundown, or just as the other bees are ceasing to fly. Now drum on the hive, and smoke in the entrance a few minutes, after which remove the screen at the entrance, letting the confined bees have a flight, when they nearly all mark their new location, remaining at the same, if these, in addition to the other precautions, are used.

INTRODUCTION OF QUEENS.

My method of introducing these virgin queens, as fast as they hatch in the nursery, is as follows: Watch the nursery closely, so that the queens will not become old enough to kill each other, or bite open the unhatched cells and destroy the inmates. I examine for hatched queens about five times per day, going as early and late as I am up, so as to make the interval during the night, between examinations, as short as possible. I have not as yet had a queen destroyed.

When you find one or more hatched, place each in a wire-cloth cage, and carry her to one of the previously-formed nuclei; smoke the "guards," and removing the stopper from the cage, place the open end at the entrance of the nucleus, and let her run in. Just as she passes in, send a light puff of smoke after her, and leave the hive with the empty cage. I think that the less you arouse the colony, the surer you are of success. I advise the use of no more smoke than to make sure of subduing the "guards."

There has been some discussion regarding the best age of the nucleus at the time the young queen is run in. Some consider such introducing safe, only after the nuclei have their queen-cells capped, which will be from 3 to 6 days after they are formed; but I have always endeavored to get a young queen in sometime between 24 and 48 hours after formation. I have in many instances failed to have my queens on hand as soon as I intended, and have this season run queens into nuclei of all ages, from six hours to as many days, and I think not a single failure has beset my efforts. I have found about one in fifteen of my nuclei queenless, but as I seldom look after these matters previous to a week after introducing, and have in no case found queen-cells on the combs, I infer that these queens were accepted, but were lost on their mating trip or otherwise, afterwards.

I wish to caution the less experienced against opening a hive "to see how the queen is coming on," or for any other purpose, if it can well be avoided, within 6 or 7 days after the introduction of any queen. I have received many letters like this: "I received the queen apparently all right. I introduced her safely, and found eggs the next day after liberating, but now I cannot find her, and queen-cells are started."

Bees seem to receive a new queen on probation for the first 3 or 4 days, and if during the time they are subjected to any disturbance, they suspect the stranger as the cause, and at once destroy her. I have had colonies kill their old mother, upon having their hives opened. This always took place in the spring.

If for any reason it becomes necessary to open a hive, soon after introducing a queen to its colony, by the use of the big volume of smoke, be sure that you subdue this colony most thoroughly.

In introducing fertile queens I have adopted the caging plan, and that of besmearing the new queen with honey, and dropping her into the hive at once, upon the removal of the old queen, and with both methods I have very seldom lost a queen.

Dowagiac, ♀ Mich.

For the American Bee Journal.

Fumigating Comb Honey.

DR. C. C. MILLER.

I have been much interested in looking over the replies given on page 740 of the AMERICAN BEE JOURNAL for 1886. Generally, the replies to queries show great uniformity of opinion, but in this case there is variance enough to make lively reading. The amount of surplus used for 1,000 cubic feet of space varies from "a heaping table-spoonful" to "2 pounds;" that is, if my own reply reads as I meant it. I should say I never wrote "1,000 square feet of comb," but "1,000 cubic feet of room;" but if I say anything of that kind it would be just like Bro. Newman to quietly enclose and mail to me the original copy written word for word as printed.

In any case, the amount given by me is so much more than others, that I have just been out to measure my smoke-room to see how my answer compares with my actual practice. It measures about 600 cubic feet. I have many times fumigated honey in it, each time using just one pound of sulphur. The room is generally filled with honey piled up to the ceiling. A few sections will show the green color, but on the whole, I think it is not far from right.

But if I am right, how about the others? Dr. Brown thinks a heaping table-spoonful sufficient for 1,000 cubic feet of space. I regard Dr. Brown as a man not likely to make reckless statements, and in his case I presume the amount mentioned is sufficient. He stipulates that "the room should be perfectly tight." Mine is not, and this would make quite a difference. He probably never allows time enough to elapse so that the worms may attain any size, and when taken at that stage, when nothing but a bit of fine powder can be seen, I presume a heaping table-spoonful will be more effective than 2 pounds when the worms have reached full size.

Then again, the Doctor may have in mind that the space will be almost entirely filled with honey, and this may make a great difference. In 1,000 feet of space, if 900 feet are occupied with honey there will be only one-ninth the empty space that there will be if 100 feet of space are occupied with honey. With the same amount of sulphur burned in each, will not the fumes be nine times as strong in 100 feet of empty space, as in 900?

Still I would rather have plenty of sulphur, for if a small quantity is used, and an occasional worm is left alive (and I have found an occasional one alive after my heavy smoking), it is worse than to have a very few sections green. After worms have grown to full size, it is almost impossible to kill them with any amount of sulphur.

As to the manner of burning, I think coals and heated irons will be discarded by any one who fairly tries the easy and simple way of lighting the sulphur directly with a match. I use the powdered sulphur. Possibly the roll-brimstone would not light so easily.

My experience does not lead to the same conclusions as Dr. Tinker has reached. I think that I should not care to hold up sections to the light to see if pollen was in them, for if the pollen is covered with honey and sealed over (and I think it is never sealed without first being covered with honey), I should no more fear worms than if no pollen were present. But the occasional open cell of pollen that mars the surface of an otherwise beautiful section, is pretty sure, under favorable circumstances, to mark the birth-place of a worm. It is possible that a worm may develop in the pollen under the honey, but I have never observed it.

However that may be, I am sure that I have seen worms start where there was no pollen. If any one should object that a microscope might discover traces of pollen where I could with the naked eye see none, I reply that I am not talking as a hypocritical scientist, but as a plain bee-keeper to bee-keepers, and as such, if I can see no pollen, I feel justified in making the assertion in ordinary language, that there is none there. Indeed, I suppose Dr. Tinker uses the language in the same way, as he speaks of holding sections up to the sunlight to see if pollen is in them. I have frequently seen worms originating on the edges of the walls of cells not filled with honey, next to the wood. I have even seen them on foundation in sections not yet drawn out by the bees. Whether these will grow to full size without pollen, I am not prepared to say, but I have seen them sufficiently developed to injure the appearance of sections.

I have read and re-read the statement of Mr. Heddon with considerable surprise. I do not want to say it loud enough for him to hear me, but I have a slight suspicion that in this matter James is just a little out. Locality may make a difference—time of year, I know, does make a difference—but I suspect that in my locality, if my colonies were all re-queened with the best queens in the world, and a lot of sections taken off late in the season, especially if some of them had pollen or combs a little dark, and those sections kept in a place favorable for the development of worms, the worms would be forthcoming. Still, I have been many times mistaken, and this may only be another instance.

Marengo, Ills.

[After keeping the "copy" for each number, tied up and labeled, for 5 or 6 months, it accumulates so fast that we throw it into the waste-basket. As the answer Dr. Miller refers to was printed a year ago, the copy is destroyed, and we cannot refer to it now.—Ed.]

Eastern Farmer.

Winter Preparation of Bees.

J. E. POND.

Statistics as shown by the various reports given in from year to year, indicate that more losses arise from lack of winter protection than from all others, except perhaps in some districts where foul brood has gained a foothold.

One of the chief causes of winter loss, in our judgment, consists in not beginning early enough in the fall to get the brood-chambers ready for winter's severity. The desire to get as large a surplus crop as possible induces many to leave all winter preparation till fall honey season is over. This we deem to be wholly wrong; it breaks up the brood-nest just after the bees have made their own preparations, and in many cases puts the bees into winter quarters with both unripened and unsealed stores. The rule should be, we believe, to cause no disturbance whatever to the brood-chamber after the middle of August; about that time we make our final examination, see that all is right, and then allow the bees to fit up to suit themselves.

In early fall, however, and just before the advent of cold weather, we contract our bees' quarters to as many combs only as they can well cover, spacing them a little wider apart than is allowed during the breeding and honey gathering season, and see also that they have a sufficient amount of stores to last them through.

Five full frames of comb the Langstroth size we deem amply sufficient, and the fact that we have been invariably successful in wintering is proof that we are nearly correct in our views; our losses from all winter causes during the last 20 years not being 5 per cent. During that time we have used chaff hives, double walled hives, hives variously protected with packing, etc., and single-walled hives, and in wintering on summer stands (which is our custom), we have not found any great difference, and are led to the conclusion that more depends upon other things than upon the quality or thickness of our hives.

What is required, we think, is plenty of bees, in good hives proportioned to the size of the colonies, plenty of stores, well ripened and sealed up, and where the bees can get at them at any time, with just sufficient ventilation to prevent excessive moisture. By this means the bees are kept quiet, and thus retain their vitality, and do not kill themselves in the attempt to preserve life, by extra exertions to overcome severe cold, or to break their clusters in the endeavor to find scattered stores.

We do not propose to theorize on this matter, but simply to state our belief drawn from our own experience, leaving it for others to theorize or not, as they choose. It is enough for us to know that we do not lose our bees, and that we adopt the measures above indicated in getting them ready for the winter campaign. If others meet with success, with different treatment, all right; but if they have not been successful heretofore, we advise them to try our method, and see how it works.

North Attleboro, Mass.

For the American Bee Journal.

Results of the Season of 1887.

H. J. ROGERS.

I commenced the season of 1887 with 48 colonies, nearly all of which were strong enough on May 1 to easily repel all robber bees. On May 10 apple blossoms began to appear, and I never saw so many blossoms on trees before, so it seemed to me. But for some reason, probably the cold wind, the bees did nothing except to build up, which they did to some purpose.

In about ten days after apple blossoms disappeared, raspberry opened, and about all the colonies commenced storing honey in sections. This continued for just ten days, and white clover came, but it yielded no honey at all.

Up to this time I had counted on a big yield of honey, but I found that I was too premature. A drouth set in. Bees commenced to swarm, and although I did not allow but one swarm to issue, yet I could not get another pound of honey from those which had sent out swarms, except by cutting out queen-cells and hiving a "big" swarm into the hive when one had issued. This plan worked well, and I am indebted to one of the American Bee Journal's correspondents for it.

The dry weather continued, and my bees soon tired of sending out swarms, and commenced to slaughter the drones. But about July 10, basswood bloomed, and this gave them a new impetus. For just seven days they fairly "went crazy" over honey gathering, and the drones lived on, except those that had already paid the debt of nature.

When buckwheat came, two weeks later, I took 700 pounds of comb honey, besides filling up the brood-chambers with from 2 to 3 frames for winter. (I had from 5 to 8 frames before, from raspberry and basswood.) Now I have a showing of about one ton of comb honey, and plenty for the bees for winter stores. I have my bees packed on the summer stands, and if my "luck" does not desert me, I will have nearly all of the 70 colonies I now have, when "the spring-time comes again."

Stannard's Cor., N. Y., Oct. 31, 1887.

Prairie Farmer.

Sweet and Alsike Clover.

MRS. L. HARRISON.

Bee-keepers have for many years been experimenting with, and seeking after plants which will pay to raise for honey alone, but have never found one that was satisfactory. The clovers are the most popular honey-plants, and, excepting the sweet clover (*Melilotus alba*), are favorites with the farmers.

The presence of sweet clover is sufficient proof that there are bee-keepers near by. It is classed among pernicious weeds in Illinois, but this is a mistake, as it dies root and branch the second year, and does not spread. This is proven by the fact, that where roads and lanes are so full of it, and its growth is so rank that it is difficult for a team to drive through, yet not one stalk will be seen growing in the adjoining fields. During muddy weather the seeds are carried on wagon wheels for long distances, and seem to germinate more readily in this way. I have an idea that the seed heats easily, for several times I have gathered it as it ripened and put it into a paper sack, and sowed it in waste places, and not a plant appeared. But when I cut off the stalks and scattered them, it grew and held its own ever afterwards.

When speaking of this plant, I always think of the old minister who had a surly wife, and would not allow any of the fraternity to visit him. When one of his brethren was condoling him he said, "Don't pity me too much, brother; my wife has some good streaks." This plant also has its good points, growing and thriving in poor gravelly soils, and enriching them by its deep, long roots and branches, and preventing gullies by holding the soil; and lastly by producing the choicest nectar during drouths and periods of scarcity. It has value as a forage plant in early spring, as it grows before other clovers, and is relished at this season by stock, and especially by fowls. It is sometimes cut and stored with hay on account of its fragrance, as it will perfume the whole mow. Gather the stalks now, and cause the waste places to rejoice with the happy hum of industrious bees next year.

White and red clover have an established reputation, and need no words of praise. Alsike or Swedish clover (*Trifolium hybridum*) is a stronger grower than the white, and has a white blossom tinged with pink. It forms excellent pasture and hay, and some of the Indiana apiarists exhaust our language in its praise; it thrives with them on a damp, clay soil. I have tried to grow it in dry, sandy soil, and always failed, but have since learned that it is sown in Sweden in late winter upon the snow, and I never tried sowing it at this season.

Peoria,⊙ Ills.

For the American Bee Journal.

Educating People about Bee-Keeping.

G. H. ASHBY.

I send you the dues for the Union. I feel ashamed that I have not joined the Bee-Keepers' Union before, when I have noted the great good that has been done through it. I live in the heart of the village, but I am fortunate in having good people around me, who recognize my bees as their friends. This county is one of the three greatest fruit counties in the State. This year we will ship about 100,000 barrels of apples, and we raise other fruits in like proportion. There are a great many bees in the county, but mostly only a few colonies in a place. I never heard of any trouble about bees here. By making an exhibit at the County Fair each year, and in other ways, I am educating the fogies in the direction of modern bee-culture; so that I hope soon to "show up" a little on the interesting honey question.

The dealers in town will now buy nothing but one-pound sections, unless at very much reduced rates, which is doing more good in driving people to use improved fixtures, than anything else. I find that by making poor goods unsalable, I am tickling their pockets, which is a very tender spot with most people. I also, in advertising, offer instructions free. I often have to show a person a queen, after forty or more years of bee-keeping. The hardest thing I have to do is to get them to subscribe for one of the papers on bee-keeping.

Albion,+o N. Y., Oct. 31, 1887.

Exchange.

Beginning in Bee-Keeping.

L. C. ROOT.

Those interested in our pursuit should spend some portion of their leisure during the winter months in acquiring information in regard to the most approved methods in the apiary. It is desirable that those who wish to commence bee-keeping should become familiar, not only with the necessary, but the best fixtures, in order to begin intelligently, and to continue in the right direction.

Many beginners do not attach sufficient importance to this matter of preparation by reading, and often find it necessary to make many changes, thereby incurring much needless expense. Others become discouraged and drop the business in a year or two, when, if circumstances had been more favorable, they would have attained, with application, reasonable success. It is a mistake for beginners to hope to reach at once, results equal to those who have had years of experience. Those who indulge in this idea, will be sure to meet with disappointment. It is a common mistake with modern writers upon bee-keeping to offer too glowing inducements to the inexperienced.

In my opinion there are, at the present day, two distinct classes, taking extreme ground in relation to our interests, both of which I conceive to be in error. One class endeavors to induce all, without regard to fitness, to engage in bee-keeping, assuring them, by delusive statements, that it is the highway to prosperity. The other, on the other hand, says that the business should only be conducted by specialists, who devote themselves exclusively to it. I am often told that I am helping to instruct the public to produce such quantities of honey, that those of us, who make it a special business, cannot dispose of our own honey at figures that will make it remunerative. I admit that there may be some truth in this, if we are to be controlled by selfish aims alone, but I cannot believe that this is the proper view to take of it.

The facts are these: All over this beautiful land, blossoms are secreting honey which is passing away and being wasted, at the very doors of those who might, with a proper understanding of the means, secure it as a wholesome article of food. Again, there are those in nearly every community, who are keeping a few colonies of bees in box hives, and in the old way securing little or no profit. This is the class I desire more particularly to influence. One of the earliest lessons I received was, that whatever it paid to do at all, it paid to do well. If it pays at all to keep bees in the manner alluded to, it certainly must pay much better to keep them after the most improved methods of the present.

It is not true that all can keep bees successfully, but only such should undertake it as are by nature adapted to it, and will give it the same thorough continued application that is required to make any branch of business profitable. If one desires to understand how to commence rightly, and to become familiar with what is required to conduct bee-keeping satisfactorily, secure some practical work on the subject which does not represent either class of extremists just mentioned; begin moderately, and grow into the business as experience increases.

Stamford,♀ Conn.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16.—Western, at Kansas City, Mo.
J. A. Nelson, Sec., Muncie, Kans.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Nov. 19.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Nov. 25, 26.—Pike Co. & Ills. Cent., at Pittsfield, Ill.
W. T. F. Petty, Pres., Pittsfield, Ills.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Too Wet for the Bees.—A. W. Smith, Parksville,∽ N. Y., on Oct. 28, 1887, writes:

My report for 1887 is as follows: Spring count, 83 colonies; extracted honey, 2,325 pounds; and comb honey, 370 pounds. They increased to 103 colonies, and I doubled them down to 75 colonies, and fed them about 500 pounds of old honey to get them in condition for winter. It has been too wet here for the bees to get much honey.

Northwest Arkansas as a Bee-Country.—Wm. Camm, Murrayville, +o Ills., on Oct. 29, 1887, writes:

In my late travels I found northwest Arkansas a poor bee-country, and the Indian country is over-rated sadly. Northwest Arkansas has had a wild flora fair for bees, but while that is all gone, it has not been replaced, and I fear it will not be. I met drouth there as here, and found natural opportunities closed by speculation against labor there quite as much as here. By an appeal to those qualities and faculties that lift men above and distinguish them from brutes, by reason and moral suasion, we must seek to change social conditions so as to change interests in land to its improvement, rather than ownership, and then we can find some way of retaining more moisture in our soils.

Good Supply of Winter Stores.—J. W. Sanders, Le Grand,⊙ Iowa, on Oct. 27, 1887, writes:

We are all, or nearly so, without any surplus honey this fall. I think that my own bees have a good supply of winter stores, for there was a fine quantity of buckwheat in this vicinity that helped out the fall flowers. The frost staying off so late was another help. I find that some have fears, where they had no buckwheat at hand. The drouth in Iowa was a severe one, and our white clover fields, that have been so magnificent in the past, were one brown mass this season—just enough to keep up a healthy brood-rearing, but no surplus. Then we had about two weeks of basswood bloom, and during this the bees did very well, and stored enough to live on during the hot, dry weather of July and August. During the latter part of August and September, all went well, so that now we hope to have a supply of the natural sweets for the bees.

Very Dry Season.—J. S. Willard, Bedford,♀ Iowa, on Nov. 1, 1887, says:

The weather has been very dry here almost the entire season, and water for stock was very scarce. The bee-business has also been almost a failure. I am feeding my bees for winter for the first since 1871. They have part honey stores, and enough this time. It looks as though I would have to enter some other business in connection with bee-keeping to "make ends meet" in such seasons as this, but I hardly know what to try, as I am neither stout nor well educated.

Cycloned Honey.—C. W. McKown, Gilson,⟜ Ills., writes:

Let me suggest a new name for extracted honey. The name I propose carries with it *meaning* as well as euphony. Much argument might be reasonably advanced in support of this name, but I will submit it without argument, except to say that it would carry a meaning to the brain of the dumbest groceryman that handles honey. It is "cycloned" honey! This conveys the idea of "whirling around very forcibly."

Bees did Poorly, etc.—T. J. Loveland, Tripoli,♂ Iowa, on Oct. 28, 1887, says:

Bees have done very poorly this year. I put 125 colonies into the cellar last fall, and lost during the spring 78 colonies. I sold one colony, and commenced the season with 46 colonies. My increase was 6 swarms. I got 800 pounds of comb honey. My bees have enough to winter on, excepting 1 or 2 colonies. It was the poorest year since I have kept bees.

My Experience with Bees, etc.—J. T. Tweedell, Bowdon,⟜ Ga., on Oct. 20, 1887, writes:

I commenced bee-keeping last spring with 2 colonies of hybrids, had 7 swarms, doubled one colony back, and I now have 8 colonies in fair condition. I got about 20 pounds of comb honey. I do not think that 10 per cent. of the bees in this part of the country swarmed, and we have had very little surplus honey. I know one man that had 13 colonies last spring, and now has only 8, but had no swarms, and lost 5 from starvation. He has box-hives. No swarms and no honey is the general complaint. The AMERICAN BEE JOURNAL has been a great help to me. I could not do without it and keep bees.

I send a plant to be named. I think that it comes up in the spring from the root. It grows from 3 to 5 feet high, and blooms profusely. It is now in full bloom, and my bees have been working on it for 2 or 3 weeks. Some plants have white and others various shades of purple blossoms.

[They belong to the numerous family of asters—all excellent for honey.—ED.]

Uniting Colonies before Winter.—D. M. Stoler, Saxton,♀ Pa., on Oct. 29, 1887, writes:

Would it add to the strength of my bees to give to them bees from the past summer's swarms, that have not sufficient stores to winter on? There are several such colonies near me that I can have the bees from, as the parties will let them die. If it would be advantageous, how is it best to unite them? My bees are reasonably strong, with a fair supply of stores, except one, which I find *now* is short of stores. What is best to do with it?

[Yes, if your hives contain enough food for the united colonies, and it is not too cold. Here it is now nice Indian summer weather. To unite: Sprinkle both colonies with sweetened water scented with the essence of peppermint; smoke well, and put them all together in one hive. If you do not wish to select the poorest queen and kill it, leave that matter to the bees to settle. Feed the colony that is short of stores, or unite it with one that has plenty.—ED.]

Hiving Swarms, etc.—Elias Richmond, Lyons,⟜ N. Y., on Oct. 31, 1887, writes:

Two years ago last spring I had 14 colonies of bees, and now, with the increase, I have 32 colonies. The amount of surplus honey this year is small; however, I think the bees have plenty in the brood-chamber for winter stores.

In my experience I have noticed that swarms which alight high are not apt to stay after being hived. On one occasion I got a swarm the third time from a high limb, and by sprinkling them I succeeded in getting the queen, clipped her wing, and hived them again; but the next day they "moved out" again, and alighted on another high limb, but left the queen with wing clipped lingering about the hive. I thought they might return to the hive with the queen, but they left the premises. One said: "Perhaps they did not like the hive." But I put the next swarm in it, which stayed and did well. Another said: "Perhaps they had two queens."

Last spring, during the first warm weather, the bees came out from every hive, and seemed to enjoy it. Cold weather set in again for 2 or 3 weeks; another warm spell appeared, and they came out lively again, except from one hive, which, upon examination, I found the bees had deserted and left plenty of honey.

I have noticed that my bees have usually come out the best in the spring which was preceded by a steady cold winter. This gives me some faith in the theory of hibernation. My bees have built combs in all sorts of shape in the frames. Since taking the AMERICAN BEE JOURNAL I see how this can be prevented.

Condition of Bees in Nebraska.—R. R. Ryan, President of the Nebraska State Bee-Keepers' Association, Bradshaw,⊸ Nebr., on Oct. 27, 1887, writes:

The weather is quite cool, freezing ice 1 inch thick last night. My bees have plenty to live on during the winter, but brood-rearing is over. I shall put my bees in the cellar in about one week. The cellar is cemented, and keeps dry, but in this country I never heard of damp cellars. Bees generally are in good condition for winter. My second year's success in bee-keeping is as follows: In the spring I commenced with 28 colonies, increased them to 58, one became queenless and I doubled it up; sold 2 colonies, have 55 colonies now, and took 1,000 pounds of extracted honey, and 300 pounds of comb honey. I have sold some at 15 to 22 cents per pound, and guarantee it pure and good, or money returned.

Bee-Keeping in Western Texas.—Jas. D. Stephenson, Boerne,⊙ Texas, on Oct. 26, 1887, says:

We are having a hard time of it here in Western Texas, as we have had no crops to speak of in two years. Bees have done poorly. The Italians have built up strong for the winter, besides storing about 30 pounds of surplus fall honey. The blacks suffered during the drouth, and have not recovered yet. I would not take $50 for what I have learned from the AMERICAN BEE JOURNAL. I am considered "the bee-man" of this county.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

California Excursions.

At frequent dates of each month, the Burlington Route, C. B. & Q. R. R., runs excursions to San Francisco, Los Angeles and San Diego, at greatly reduced rates of fare. By the "Burlington" one can have a choice of routes to California, as its lines from Chicago, Peoria and St. Louis extend to Denver, Council Bluffs, Omaha, Saint Joseph, Atchison and Kansas City. Should one desire to make the return trip via Portland, Oreg., they can continue their journey south or east from St. Paul or Minneapolis, over the Burlington Route, to Chicago, Peoria or St. Louis. For California excursion dates, rates, tickets or further information, apply to ticket agents of the C. B. & Q. or connecting railroads, or address Paul Morton, General Passenger and Ticket Agent, Chicago, Ills. 43A4t

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf :

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk ; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is $2.10 for both papers, and the Book and postage.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents ; if a whole piece of 12 yards is taken, $2.25 ; 10 pieces, $20.00 ; if ordered by mail, send 15 cents per yard extra for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., **40** cts. ; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

Don't do it!—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@18c. Receipts continue light, and prices tend higher.
Oct. 14. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections or about, brings 18@20c., some fancy shipments are held at 22c.; 2-lb. sections, 16@18c. Dark honey is slow sale. Extracted, 7@10c.
BEESWAX.—22@23c. R. A. BURNETT,
Oct. 20. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections sells as high as 19c. A few lots are held at 20c. Demand increases as fruit becomes scarce.
BEESWAX.—23c.
Oct. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.; 2-lbs., 17@18c. White clover extracted, 8c.
BEESWAX.—25c.
Oct. 24. A. C. KENDEL, 115 Ontario St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. Demand fair.
BEESWAX.—25 cts. per lb.
Oct. 22. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 6@6½c.; amber colored and candied, 5¼@5¾ cents. White to extra white comb, 15@17c.; and amber, 10@12½c. Supplies and demand are small.
BEESWAX.—17@21c. for good quality
Oct. 15. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.
BEESWAX.—19@22c.
Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.
BEESWAX.—No. 1, 22c.; No. 2, 18c.
Oct. 8. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@7c. per lb. Demand is good for clover honey in square glass jars from the jobbing trade. No new comb honey is in this market, but we would think that choice white would bring 18@20c. in a jobbing way.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 20. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.; 2-lbs glassed, 10c. Extracted, white, 8@10c.; dark, 6@7c. Demand good, market firm.
Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.
BEESWAX.—24@25c.
Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.
BEESWAX.—22@25c.
Oct. 26. A. V. BISHOP, 142 W. Water St.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Advertisements.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
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CARL PRETZEL.

HIS Paper, THE SUNDAY NATIONAL, 48 Columns. Refined and entertaining. Devoted to secret societies. $2.00 per year.

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C. H. HARRIS, (Carl Pretzel,)
45A1t CHICAGO, ILLINOIS.

W. Z. HUTCHINSON,

Flint, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column

The NEW Heddon Hive.

We have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; nailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

A SAMPLE HIVE includes the bottom-board and stand; a slatted honey-board, and cover; two 8-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is NAILED AND PAINTED, and ready for immediate use. Price, $4.00, complete.

THOMAS G. NEWMAN & SON,
923 & 925 West Madison-St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

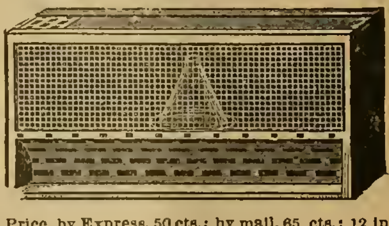
J. FORNCROOK & CO.,
MANUFACTURERS OF THE
"BOSS" One-Piece SECTIONS,

PATENTED, JUNE 28, 1881.

Patented June 28, 1881.

WILL furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.
Watertown, Wis., Oct. 25, 1887.

Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

The American Apiculturist
WITH SUPPLEMENT.
A full description of the
Bay-State Reversible Bee-Hive
in the November Number. COPIES FREE.
Address, **HENRY ALLEY,**
44Atf WENHAM, Essex Co., MASS.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

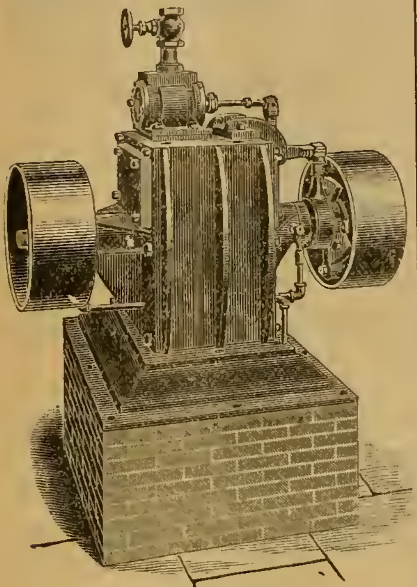
THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

A NEW ENGINE.

(Entirely New Invention.)

WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



No high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

☞ Send for a Circular. Address,

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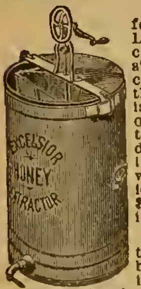
Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	......$8 00
For 2 Langstroth "	10x18	"	.... 8 00
For 3 " "	10x18	"	.........10 00
For 4 " "	10x18	"	.........14 00
For 2 frames of any size,	13x20	"	.........12 00
For 3 " "	13x20	"	.........12 00
For 4 " "	13x20	"	.........18 00

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923 & 925 West Madison Street, CHICAGO, ILL.

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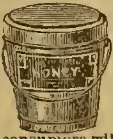
By a Special Arrangement with the **Practical Farmer**, the American Bee Journal and the **Farmer** will both be sent for One Year upon the receipt of $1.50 by the Publishers of the American Bee Journal.
41A12t

NEW ONE-POUND HONEY PAIL.



This new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

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BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

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More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

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1Aly . Agricultural College, Mich.

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SQUARE GLASS HONEY-JARS, etc.

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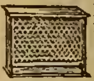
Patent Flat-Bottom Comb Foundation



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Bee-Keepers' Cards, HEAD-QUARTERS! —Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candles 15c.

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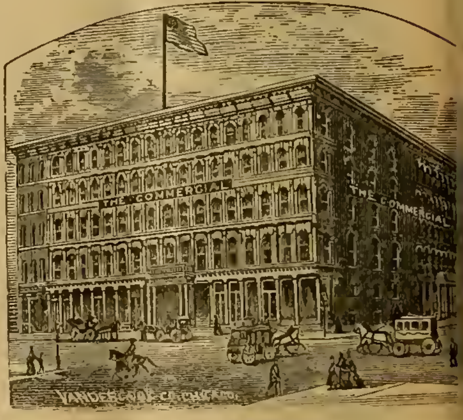

HEAD-QUARTERS
FOR THE

Union Bee-Keepers' Convention

November 16, 17 & 18, 1887.

—SPECIAL RATES FOR DELEGATES!—

HOW TO RAISE COMB HONEY,

Price 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

WORK FOR ALL. $50 A WEEK & expenses paid. Outfit worth $5 & particulars free.-**P. O. Vickery**, Augusta, Me.
39A8t

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Nov. 16, 1887. No. 46.

Autumn.—The following is from *Harper's Bazar:*

The butterfly's departed,
  Likewise the belted bee,
The small boy in the orchard
  Is up the apple tree.

The leaves are crisp and russet,
  The sumac's blazing red,
The butternut descending
  Is cracked upon your head.

The trees wear lovely colors
  In beautiful excess;
All nature seems to rustle
  Just like a new silk dress.

* * *

L. Highbarger has removed from Adeline to Leaf River, Ills.

* * *

Dr. G. Leibrock & Sons, of Western Illinois, made a fine exhibit of honey, bees, and apiarian supplies at the St. Louis Fair.

* * *

Mrs. Mahala B. Chaddock, of Vermont, Ills., is going to Florida to spend the holidays, and wants some others to go with her and "tent" out.

* * *

A Fire recently destroyed the residence of Mr. W. Z. Hutchinson, at Rogersville, Mich. He had moved his goods out of the house, and his brother was moving his household goods into it at the time it caught fire. It was fully insured. The brothers were building an out-door cellar in which to winter their bees. Heretofore they have been wintered in the cellar under the house.

* * *

One of the Books, which is given away with club-subscriptions to the BEE JOURNAL and New York *World*, as mentioned on page 732, is an illustrated volume of 320 pages, and is entitled "The History of England in Chronological Form, by F. T. Jones." On page 19 the author mentions the first voyage made from the Mediterranean Sea. It was about the year 325, before the Christian era, and was made by Pytheas, a Greek astronomer and mathematician. He spent some time with the inhabitants in the South-East, near Gaul (France), and says that they grew plenty of wheat, which was gathered in sheaves into large barns where the threshing was done; and avers that they were acquainted with bee-keeping, and made mead or metheglin from honey and wheat. The book gives a concise history of England from the earliest times until the present year, the last data being July 19, 1887.

Hon. L. Wallbridge.—When referring to this learned and influential gentleman, on page 694, we had no idea that our next mention of our illustrious friend would be to chronicle his death, which occurred about the time of the writing of our paragraph concerning him. He died of Bright's disease, after an illness of one week. From the *Canadian Bee Journal* we excerpt this biographical sketch of him:

> Lewis Wallbridge was born in Belleville, Ont., Nov. 27, 1816. He was a grandson of Elijah Wallbridge, a United Empire Loyalist, who settled in Canada shortly after the American war of Independence. His father was a lumber merchant of Belleville. The family emigrated from Dorsetshire, England, on account of having taken part in the Duke on Monmouth's rebellion against King James.
>
> Mr. Wallbridge received his education under the late Dr. Benjamin Workman in Montreal, and at Upper Canada College, Toronto. He studied law in Mr. Robert Baldwin's office, Toronto, was called to the bar in 1839, and created a Queen's Counsel in 1856. In 1858 he was elected to the Parliament of Canada, subsequently becoming Solicitor General, and a member of the Macdonald-Dorion Government.
>
> In 1863, whilst holding the office of Solicitor-General, he was elected Speaker of the House, which position he occupied for a little more than four years, and presided over the debate on Confederation at Quebec. After retiring from political life he practiced law in Belleville, and on the death, in 1882, of Hon. E. B. Wood, Chief Justice of Manitoba, was appointed to succeed him. He heard and gave judgment on the first of the recent injunction cases against the Red River Valley railway.
>
> In the apicultural world he was a prominent figure. At the organization of the Ontario Bee-Keepers' Association he was chosen its first vice-president, succeeding to the presidency the next year, and though for some time past he has been a "silent" member, he had always the interest of the association at heart.
>
> As a bee-keeper he was practical, ardent and enthusiastic, keeping his apiary of 100 colonies supplied with all the newest inventions of genuine worth. He secured large yields of honey, though he followed the pursuit merely for pleasure. His was a kind and genial disposition, and he had a host of warm friends who, with us, will mourn his loss.

* * *

The Michigan horticulturists and bee-keepers meet in joint convention at East Saginaw, on Dec. 5 to 10, 1887. At the joint session on Dec. 7, these are the subjects to be discussed:

> "Do bees injure maturing fruits?" "What trees are valuable for honey and also useful for decorative purposes about a homestead?" "How great are the benefits of honey-bees in promoting the setting of fruits?" "How does bee-keeping supplement horticulture commercially?"

This is a grand arrangement; to have a mutual discussion of these topics will do more to enlighten the "rank and file" than anything else can. The grandest proposition ever made to the world was in these words—"Come, let us reason together." Good-natured discussion is always salutary and harmonizing in its influence. For particulars concerning railroad fares and hotel rates, send to H. D. Cutting, Secretary, Clinton, Mich.

* * *

Mr. E. Armstrong, of Jerseyville, Ills., expects to be at the Convention this week with his new reversible hive and section-case, as well as the machine for making (with one motion of a lever) the T tins, and other articles, the inspection of which will be interesting to bee-keepers.

Honey from the Thorn Tree.—The Indianapolis *Journal* gives the following particulars concerning honey from the before-named tree, and suggests another use for it:

> Stenocarpine, the new anæsthetic derived from the American honey locust, commonly known as the thorn tree, which has heretofore been considered a great pest, is likely to become a great blessing in a commercial way, and will probably take the place of the expensive cocaine. While its anæsthetic or narcotic properties are a new discovery to the medical world, there are dozens of the "old seminary boys" about Indianapolis who have had amazing experiences getting drunk by eating the honey from the margins of the pods. "I well remember, 45 years ago," said Dr. W. B. Fletcher to a *Journal* reporter, "when a beautiful forest covered the now thickly populated triangle bounded by Virginia avenue, East and Stevens streets, then known as 'Stevens' woods.' There, on a sunny slope, about the first of March, the melting snow exposed quantities of great rich pods, which, from winter's frost, had undergone a sort of maceration that had developed the narcotic principle in the honey margin of the pod. A half-dozen of us boys, from 6 to 15 years of age, devoured our fill, with the result of all becoming drunk. Some laughed and staggered; all talked nonsense. I remember but two incidents of this first drunk. One was the entire loss of the sense of taste. The other was getting spanked for the spree—and the spanking didn't hurt."

* * *

Mr. J. M. Valentine wrote the article published on page 697, entitled, "The Season of 1887," but in our absence "on the sick-list," things got "a little mixed," and it was credited to another person. This arrangement neither satisfied the *real* nor the *reputed* author, and so we make the correction.

Another party, not satisfied with the article, is the firm of D. G. Tutt & Co., who were mentioned by Mr. Valentine as the honey-merchants he visited. They want us to publish the following:

> The gentleman who wrote this article did not call on *us*. We have never had any cans or jar honey in our house; nor do we quote it at figures named. He has evidently called on some of our neighbors, who quote in other papers. We write this in explanation, and justice to ourselves.

We publish the above, not to decide the controversy, but to give both parties a hearing. They must settle the dispute themselves.

* * *

Messrs. Geo. Neighbour & Sons, of London, England, on Oct. 24, 1887, wrote us this item:

> Our much respected countryman and fellow bee-keeper, Mr. Cowan, has returned, and given us at our Quarterly Conversazione, on last Wednesday, a very interesting account of his sojourn amongst American and Canadian apiarists. He spoke very highly of the great kindness he had experienced during his journey, for which, in common with him, the members of the British Bee-Keepers' Association feel very grateful.

* * *

The Illustrations of the *Illustrated London News* (American edition) for Nov. 5, present as usual instruction as well as entertainment, and cover the customary broad range of this long established and widely known publication. Reading matter in abundance is also provided, while now it is becoming quite generally known that newsdealers everywhere sell the paper for 10 cents. Subscriptions can be sent direct to the New York office, which is in the Potter Building.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Space above the Frames in Winter.

Query 493.—How much space above the frames does "Hill's device" allow for the cluster?—C., Iowa.

Something over an inch.—DADANT & SON.

From one to two inches.—J. P. H. BROWN.

Entirely too much for out-door wintering.—G. L. TINKER.

Perhaps an inch in depth in the centre.—W. Z. HUTCHINSON.

I use three sticks just ½ inch square on top of the frames.—H. D. CUTTING.

All that is needed. I am not satisfied that they are of any benefit.—G. M. DOOLITTLE.

Not any, as I understand it; only space for bees to pass over from one space to another.—A. J. COOK.

About an inch in the centre, tapering down to practically nothing at each end; the device being placed lengthwise with the tops of the frames.—J. E. POND.

The device introduced by Hill varies in "roominess," so far as I have noticed them. Perhaps the fourth part of an average colony might cluster between the top-bars of the frames, and the little circular arch formed by the Hill device. Some split cornstalks in pieces a foot long, laid on top of the frames under the quilt, is as good a "device" as I care to have as a passage-way over the frames.—G. W. DEMAREE.

Long before Mr. Hill's device came before the public, I used a bow which I think I should now prefer to Hill's device. My hives are 11½ inches wide, inside measurement. The bow consists of a piece of straight-grained basswood, 3 16x⅞ inches by 12 inches long; this I soaked, and then pushed into empty hives where they dried in a bowed shape. They are cheaper than Hill's device, and as their ends are within the sides of the hives, no amount of pressure, when packing on top, will break or flatten them down. They make a splendid passage for the bees, and are theoretically "just the thing;" but many large and comprehensive experiments have failed to prove that this passage is of any use whatever.—JAMES HEDDON.

"Hill's device" allows about an inch of space in the centre for the bees to pass from one frame to another. It is a "bow," and of course at the ends the space decreases until it is of no quantity whatever.—THE EDITOR.

Hive Bottom-Boards in Winter.

Query 494.—Will it answer just as well, or better, to leave the bottom-board off entirely when the bees are put into the cellar for winter? One having successful experience informs me that he always leaves it off; that it prevents moisture gathering in the hive; and his bees never trouble by leaving the hive.—Independence, Iowa.

Yes, your authority is good.—DADANT & SON.

Yes, but the bees will winter fully as well with free upward ventilation.—G. L. TINKER.

It will answer very well if mice can be excluded.—J. P. H. BROWN.

I am told that it is done, but I keep the bottom-board on just as the bees fasten it, and give full entrance.—H. D. CUTTING.

I know nothing experimentally of cellar wintering, as I have always wintered bees successfully on the summer stands.—J. E. POND.

If your hive bottom-boards are loose, it may be well to have them off; at least give plenty of space under the frames.—C. C. MILLER.

I never use a bottom-board on my hives in the cellar, but on the contrary, I raise the hives up 2 inches from the bench and tops of other hives.—G. M. DOOLITTLE.

Our fathers did not use bottom-boards at all, and their bees wintered well as far as I know, and I do not see why your plan will not succeed.—G. W. DEMAREE.

It will answer just as well if the temperature is 45°, or thereabouts. If the hive is raised up, and a rim 1½ inches in depth placed between the hive and the bottom-board, it will answer very well.—W. Z. HUTCHINSON.

I have not tried it, but in a proper cellar I believe it would be just the thing. I wish I could easily raise my hives 4 inches from the bottom-boards in winter in the cellar. Then with the entrance wide open, the bees would be very secure.—A. J. COOK.

I presume it is full as well to have bees in winter quarters without bottom-boards to the hives, but I prefer to be excused from handling the hives in and out of the repository in that way.—JAMES HEDDON.

Yes; if the bottom-boards are loose, it will be as well to leave them off, if protection against mice is afforded.—THE EDITOR.

☞ The Marshall County Bee-Keepers' Association will meet in the Court House at Marshalltown, Iowa, on Saturday, Nov. 19, 1887, at 10:30 a m. and 1 p m. Subjects for discussion: "Winter Care of an Apiary," and "How to Improve our Society." A cordial invitation is extended to every bee-keeper in this and adjoining counties.

J. W. SANDERS, *Sec.*

Convention Notices.

Union Convention at Chicago.—The North American Bee-Keepers' Society and the Northwestern Bee-Keepers' Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn Streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day each person. This date occurs during the *second week* of the Fat Stock Show, when excursion rates will be very low.

PROGRAMME.

THE FIRST DAY.

Wednesday Forenoon, 10 O'Clock.

Convention Called to Order. Reports of Secretary and Treasurer. Payment of the Annual Dues, Reception of New Members, and Distribution of Badges.

Production of Comb and Extracted Honey in the Same Apiary—J. A. Green, Dayton, Ill.

Announcements.

Afternoon Session, 2 O'Clock.

Legislation for Bee-Keepers—Dr. C. C. Miller, Marengo, Ills.

Objects and Methods of a thorough Organization of the Bee-Keepers of America—Thomas G. Newman, Chicago, Ills.

Foul Brood, How Shall we Treat It?—A. I. Root, Medina, Ohio.

Evening Session, 7:30 O'Clock.

Legs of the Bee—Prof. A. J. Cook, Agricultural College, Mich.

THE SECOND DAY.

Thursday Morning, 9 O'Clock.

Production of Extracted Honey for Table Use—T. F. Bingham, Abronia, Mich.

The Production of Comb Honey—W. Z. Hutchinson, Flint, Mich.

What is the Best Name for Extracted Honey?—Thomas G. Newman, Chicago, Ills.

Afternoon Session, 2 O'Clock.

Cost of the Production of Honey—J. H. Martin, Hartford, N. Y.

Controlling the Price of Honey—M. M. Baldridge, St. Charles, Ills.

Getting the Best Price for Honey—E. J. Oatman, Dundee, Ills.

Evening Session, 7:30 O'Clock.

Commission Men and the Honey Market—R. A. Burnett, Chicago, Ills.

THE THIRD DAY.

Friday Morning, 9 O'Clock.

Bee-Hives, and Fixtures—James Heddon, Dowagiac, Mich.

Bee-Keeping alone, or with Other Pursuits; if the latter, in connection with what?—Eugene Secor, Forest City, Iowa.

Out Apiaries—D. A. Jones, Beeton, Ont.

Afternoon Session, 2 O'Clock.

Selection of Place for Holding the Next Convention, and Election of Officers.

Wintering Bees in the Northern States—R. L. Taylor, Lapeer, Mich.

Comb Foundation, its Manufacture and Use—C. P. Dadant, Hamilton, Ills.

Adjournment.

W. Z. HUTCHINSON, *Sec.*

☞ The Western Bee-Keepers' Society will hold a meeting on Wednesday, Nov. 16, 1887, at the residence of Mr. Peter Otto, corner of Park and 25th Streets, Kansas City, Mo. Take the 18th Street horse-cars at 9th & Main Sts. for 18th & Brooklyn Sts., thence walk south to 25th St., and thence east one block to the house. We are sure of a cordial welcome from Mr. and Mrs. Otto, and expect a good meeting.

JAS. A. NELSON, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named: ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest: ○↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

The British Bee-Keepers' Association.

THOS. WM. COWAN.

The British Bee-Keepers' Association was founded in 1874, for the purpose of encouragement, improvement and advancement of bee-culture, particularly as a means of bettering the condition of cottagers and the agricultural laboring classes. The Association consists of President and Vice-Presidents (these are honorary titles), Secretary, Treasurer, and members.

The management of the Association is in the hands of the Chairman, Vice-Chairman, and thirteen members of the Committee, who are all elected annually by ballot, the member receiving the highest number of votes being elected Chairman. Besides these are elected annually an Auditor, Treasurer, Analyst and Librarian. The Secretary is permanently appointed, as are also three experts.

The property of the Association is vested in trustees, viz: the President, Treasurer, Chairman, and one member of the Committee. There are four sub-committees, of which the chairman is an ex-officio member. These committees are Finance, County Associations, Education and Exhibitions. The Educational Committee is also the Examining Board.

The Committee meets for ordinary business once a month; the sub-committees once a month or oftener, if required. Quarterly meetings are held at which the delegates of the county branches meet the committee for discussing county business. The Association has at present 42 county branches, affiliated to it, and numbers upwards of 10,000 members. Each county association has a secretary, committee, and also a president. The presidents of county associations are vice-presidents of the Central Society.

Most of the counties are also divided into districts superintended by a district secretary and local advisors. The conditions and privileges of affiliation are stated on pages 7 and 8 of the report. When a county association is about to be formed, the Central Society sends experts who give lectures in the different towns, and endeavor to create an interest in the subject. A bee-tent, in which manipulations take place, is also sent to the various agricultural and horticultural shows. A gentleman of position is selected as secretary, and the Lord Lieutenant of the county is asked to become its president. All the nobility and gentry in the neighborhood are enlisted, and are asked to become subscribers. In this way the Central Society numbers amongst its vice-presidents several members of the Royal Family, and some of the principal aristocracy in the land.

When the conditions required by the Central Society are fulfilled, the Branch is taken into affiliation, and sends two delegates to the quarterly meetings in London. A sheet of "Instruction" to secretaries of county associations (Document No. 1) is sent to each secretary; also No. 2, relating to the rules and regulations for exhibitions.

Each Branch must send annual reports and balance sheets in prescribed form for binding up, and should it infringe any of the conditions, or fail to send its balance sheet, it is struck off the list of Branches.

The Central Society and all of its branches have bee-tents which are sent to the various shows in the districts, and any county not having a tent is supplied with one by the Central Society. All shows are held under the rules laid down in sheet No. 2.

When the bee-tent is about to visit a district, notices in the form of No. 3 are sent out, announcing the public manipulation with bees, etc.

At all shows a large number of circulars (No. 4 and No. 5) are given away to those interested. No. 4 gives instructions to beginners, and is entitled, "How to Commence Bee-Keeping." No. 5, "Honey as Food," is distributed in large quantities, so as to educate the public as to the advantages of honey, and creating a market for the product. The suggestions for forming local and county associations are given on sheet No. 6 These are to be affiliated to the Central Society.

One of the principal features of the British Bee-Keepers' Association is the examination for experts. These are of three classes, and have to pass an examination before they can hope for employment as such. Sheet No. 7 explains the different grades of experts, and what is required of them, with syllabus of subjects of examination. Candidates for the third-class certificates are examined in their own county, the Central Society sending an examiner who also acts as judge at the show at which the examination is held.

Each candidate is furnished with circular No. 8, giving him instructions as to what is required of him. The examiner is furnished with Expert Examination paper No. 9, signed by the chairman of the Examining Board, and after accepting the appointment, is responsible for conducting the examination. After the examination he has to send No. 9, with his awards, to the Examining Board, and if the candidate has passed, he gives him the provisional certificate No. 10, which is later exchanged for Parchment Certificate No. 11, duly signed and sealed.

After a candidate has passed a third-class examination, he may try for a second-class one. These are also held in some district in the county. A centre is chosen, and a superintendent—a gentleman of integrity—is also chosen. On the appointed day, the superintendent and secretary meet the candidates, and in their presence open the sealed packet which contains No. 12, instructions to the superintendent, and 13 and 14 containing questions to be answered. The candidates are placed in a row at a table, and question papers 13 and 14 are given to them alternately, three hours being allowed for writing the answers.

The superintendent reads over the rules at starting. At the end of one hour the answers to the first ten questions are collected; the second hour the next ten, and the third hour the remainder; and they are there, in the the presence of the candidates, placed in a packet together with the signed certificate of the superintendent, sealed, and at once forwarded to the secretary of the Central Society, who transmits them to the chairman of the Examining Board. The papers are examined by members of the Board, who make awards, the results being published in the *British Bee Journal*. The Board then awards the certificates No. 11.

After passing a second-class examination, candidates can apply for the first-class examination. This is always held in London, and is much more severe than either of the preceding ones. It is held in the presence of the Examining Board, and the candidate is required to have a good, practical, as well as a scientific knowledge of bee-keeping. He is required to answer satisfactorily the questions given on sheet No. 15, and also to give an *ex tempore* lecture on any subject connected with bees and bee-keeping, designated by the examiners.

Candidates having third-class certificates may try for a first class one without the second. First-class candidates having passed, receive certificate No. 11.

Many of the counties appoint only second or third class experts, whose duties are to visit the apiaries of members free of cost, and make a report on County Experts' Visiting-sheet No. 16. The first-class experts are sent out on lecturing tours.

The Central Society holds exhibitions in London (Schedule No 17), and in connection with the Royal Agricultural Society (Schedule No. 18), which goes from one large city to another. It also holds shows with other agricultural societies (Schedule No. 19), but these are for stimulating the county societies that are not very strong.

All articles sent to Exhibitions must have no name on, or destination mark, until after they are judged, and the cases must have labels attached (No. 20), with name on the reverse side. When goods are returned, the label is reversed.

Every thing must be staged by a certain time, and if not ready, is placed under the stage and excluded from competition.

A ticket of membership (No. 21) entitles a member to all the privileges, and admission to all shows throughout the country during the year.

The catalogue of last year's show of the Central Society (No. 20) demonstrates that there were 318 exhibits, and 18 tons of honey staged, all in uniform-sized sections and bottles. No. 23 is the annual report of the Central Society, and No. 24 is the volume of reports of the Branches. Those not included have not complied with the rules.

This will give an idea of the organization of the British Bee-Keepers' Association, which, by enlisting the co-operation of the wealthier classes, is able to promote bee-keeping much better than it could otherwise do. The Society has done much by issuing publications at a cheap rate, and by sending out its experts throughout the length and breadth of the land.

The Society being a philanthropic one, aims at inducing as many as possible to keep a few colonies of bees, rather than encouraging specialists in keeping bees on a large scale as a business.

London, England.

[When Mr. Cowan was with us in Chicago, we requested him to give us a description of the organization and work of the British Bee-Keepers' Association. He replied that it would be long and perhaps tedious, but that he would have pleasure in writing it out for us and accompany it with Documents, to more fully illustrate the methods and work of the Association. He did so, and just as he was embarking from New York he sent us an express package with the foregoing very interesting descriptive article, with the accompanying Documents. As the contents of some of these Documents are strictly confidential, and in no case to be made public, we have of course omitted the detailed contents, when mentioning their character.

It is very opportune at this time to obtain the foregoing information concerning the organization and work of the British Bee-Keepers' Association, for it is doubtless the most thoroughly organized and best managed Society of bee-keepers in the world!

At its Central Show of last year it had 18 tons of honey on exhibition, and the exhibits numbered 318. Then would come the societies of Continental Europe. But at the bottom of the list (we are ashamed to admit) comes the North American.

We do not state this in order to make an invidious comparison, but to cause active *emulation!* America with its three hundred thousand bee-keepers ought not to be behind the other countries of the world in anything—especially not in organization!

There is one thing to be said in vindication, however, and that is that our country is so vast—extending from the Equator to the North Pole, and from the Atlantic to the Pacific Oceans—and that the work of organizing thoroughly is a gigantic undertaking, and requires the united energies of the ablest and best devotees of our pursuit.

As this subject is to come up at the Union Convention which convenes to-day in Chicago, we will refrain from saying more at present, hoping to announce in our next issue that at least *some* steps have been taken looking towards a more creditable organization.—Ed.]

Youth's Companion.

The Price of Success in Bee-Keeping.

REBECCA HARDING DAVIS.

Eternal vigilance is the price of success in any pursuit, and in none more than in bee-keeping. All who attempt it must remember that it is not only labor, but a science, and will make incessant demands, not only on patience, but on bodily strength and intelligence.

"I have kept bees for 45 years," said an old French apiarist last summer, "and I was at the business several years before I felt that I really understood it. I have brought up 18 children, and thoroughly started them in life, thanks to my bees. What would you have more?" What, indeed?

Our French friend began with but a single colony; "one learns in little," and we recommend his example to all beginners.

Choose a place for your hives on sandy, airy ground, at a distance from the barn-yard or any drains. They should be shaded by trees or thick vines, and should be placed facing the east, about 3 or 4 inches from the ground. The old box-hive is used by few apiarists now.

The Italian bees are hardy, work harder than the ordinary German black bee, are more prolific, and, like industrious people, are apt to be amiable. I do not know of any successful apiarist who now prefers the black bee to the Italian.

Food, your bees will find for themselves in any fertile country where there are fruit trees, flower gardens, and late wild blooms, such as golden-rod, thistles and other flowers. But they should have a special provision for them in fields of the Dutch white and Alsike clover (both in the best pasturage), and beds of mignonette, asters, and borage. Buckwheat gives a rank flavor to the honey, and injures its sale in the Eastern markets.

In winter they should be protected either by chaff hives, in stowing in a cellar, or by being covered in close boxes. The method of course varies with the latitude. In States where the cold is intense, the bees should be removed to a dry, dark, perfectly quiet cellar, which should be well ventilated.

In such papers as this, of course, only the briefest directions can be given. Indeed, they are meant to be only suggestions of work, not rules for it. The beginner should send for a manual which will give instructions in transferring, swarming, feeding bees, preparing honey for the market, etc. Make the acquaintance of practical bee-keepers, and above all do not be afraid to ask questions. Apiarists, like all other naturalists, are usually enthusiastic in their profession, and glad to impart knowledge.

The great objection to this business is the danger of being stung. There are some persons to whom the sting of a bee is actual poison; but they are not likely to undertake the work. Bees undoubtedly do dislike any offensive odor, and promptly punish uncleanliness of person in their attendants. They are irritated, too, by any fright or uncertain handling in their attendants. But there is no reason why a cleanly, tranquil person, who moves quietly and betrays no nervous sign of fear, should ever be stung even while handling full hives. For protection, however, wear a veil tied over the hat and around the throat, and close-fitting, long rubber-gloves.

One apiarist, in a neighborhood where honey brought but 16 cents per pound, wholesale, told me that he gave his daughter, when she was 12 years of age, a colony for her own. The first year the colony brought her $17 clear profit, and the second, with the increase of a colony, $12. She married at twenty, taking 50 colonies and a comfortable little fortune as a dower to her husband.

Mr. Cowan's Report of his Visit.

The quarterly meeting of the British Bee-Keepers' Association was held on Oct. 19, 1887. By request Mr. Cowan gave the following account of his visit to America:

When I came here to-day I was not prepared to make any lengthened statement respecting my journeys in North America, but as it seems to be the general wish that I should say something on this matter, I shall be very pleased to give you an outline of what I have been doing over there. It is just three months ago since we (my wife and I) started for New York. After a fair passage we landed in that city, where the thermometer registered 99°, which seemed a very high temperature on coming off the ocean. We could not, therefore, stay in New York, but journeyed north up the Hudson river to Albany.

From there the first establishment we visited was that of Messrs. Aspinwall & Treadwell. These gentlemen are in business together as hive-manufacturers, queen-breeders, and dealers in bees. Their trade is not on a very large scale, but they do a fair amount of business. We stayed a few days with Mr. Aspinwall, who is proprietor of the *Bee-Keepers' Magazine*, whom I found a most intelligent gentleman, fond of scientific pursuits.

I found their appliances are very much the same as ours; and I may here take the opportunity of saying that throughout my wanderings in the States and Canada, I noticed that most of the contrivances in use were similar to those adopted by us in England. I have been enabled to carry away a few new ideas; but I feel justified in remarking that we are quite equal to our transatlantic friends as regards hive-making and all the appliances necessary in bee-keeping.

That which struck me most to the disadvantage of England, was our deficiency in pasturage. You would be perfectly astonished to see the thousands and thousands of acres of waste land across the water filled with an abundance of honey-yielding plants, immense quantities of honey being lost, owing to the want of bees to collect it.

After spending a few days with Mr. Aspinwall, he took me to see Messrs. Knickerbocker and Locke, the queen-rearers in New York State. Mr. Locke is the former editor of the *American Apiculturist*. These gentlemen rear queens in a way very similar to the Alley system, that is, by inserting strips of cells, and destroying every other egg. They rear the queens in the same way, but destroy two eggs for one left, and keep them in very much the same way as he does.

From there I went to see the largest bee-keeper in the world, Capt. Hetherington, who has 2.700 colonies. He has 20 apiaries, situated at distances of two or three miles apart, in a radius of twelve miles, so that the greatest distance he has to go from home is twelve miles. He and his brother manage the whole of these apiaries, having several men under them; they keep horses and carts, and are hard at work all day long, and continue till evening. Business is commenced at 5 o'clock in the morning. I was there during the hours of business, and saw all the working. The men go around from hive to hive, and take off crate after crate; perhaps a hive has three stories of sections, which are promptly examined, and removed if necessary, and in this way 100 or 150 crates of sections are taken off and carried away. The sections are not removed singly, as we remove them.

Capt. Hetherington produces the largest quantity of honey in the United States. He does not puff himself, and never writes for any of the papers; in fact, one seldom sees his name appearing anywhere in connection with honey-producing. He is one of the most advanced bee-keepers, and the largest producer of honey with the least fuss I have ever seen. He has been at this work for thirty years, always keeping a little ahead of the generality of bee-keepers. He is a good business man, and knows how to gratify the popular taste, having no difficulty in selling his honey. He uses sections the same as we do, and also separators. He says that it would not answer his purpose to do without separators, as he requires every section to fit into a crate, because there is no time for delicate manipulations, he and his staff working at high pressure from early morning till late at night.

Capt. Hetherington drove us over to see Mr. Ellwood, who is also an advanced bee-keeper, owning 400 colonies, and who produces principally two-pound sections of honey. We also made the acquaintance of Mr. Van Deusen, who makes the beautiful flat-bottom foundation so well known in this country.

From Capt. Hetherington's we went to Boston, and other places. As I before explained, we were obliged to direct our steps northward, owing to the high temperature. We therefore went to Quebec, Montreal, and other places, regretting that Mr. Pringle was too ill to see us when we stopped at Napanee.

At Owen Sound we spent an agreeable time with Mr. McKnight. He has 200 colonies of bees, and uses sections without separators. I saw a number of his sections; they looked very nice, but some not quite so even as those that were produced with separators. I found, generally, in Canada, that it was the practice to dispense with separators, while in the United States they were almost invariably used. The Canadians claim to produce more honey without separators.

After spending some time with Mr. McKnight, I went with him to visit Mr. Jones, and saw his works. He is the largest manufacturer of appliances in Canada, and has a 90 horse-power engine working the machinery for the construction of these articles. I was much interested by what I saw there. The business is conducted on a large scale. Hives are made in pieces, and stored away by the hundreds, and are supplied to purchasers by the dozen, the score, or the gross. Cases are made up of ten hives together.

In Canada, bee-keepers work on a large scale, there being very few in a small way of business. They go in for it as a commercial undertaking; and, of course, taking into account the pasturage and the immense extent of their country, they can do so better than we can. While at Mr. Jones', Mr. Corneil came and invited us, and we spent a very pleasant evening together.

The journey from London to Liverpool is only a question of a few hours, but traveling in America from one city to another generally occupies a great many hours. The country is not so populated as ours, and I found it necessary sometimes to make an excursion of 500 or 600 miles from one bee-farm to another. On one occasion I went nearly 1,000 miles to see the establishment of one honey-producer and foundation-maker, and that was of Messrs. Dadants', of which I shall say more hereafter.

After inspecting Mr. Jones' manufactory, his 400 colonies, and his queen-rearing arrangements, we went to Lake Superior, and from there through Michigan State to Lansing, where I stayed with Prof. Cook. He does not keep bees on a large scale; he is more of a scientific bee-keeper, and tries experiments with different hives, the results of each of which are kept separate. His object is to teach entomology and bee-keeping to the agricultural students, so as to enable them to commence that pursuit on leaving the college.

There are about 300 students at this Agricultural College, many of whom are interested in bees. On one afternoon Prof. Cook asked me to take his class of about forty students, and I am glad to tell you, that by means of my microscope, I was enabled to show them some things they had not seen before. They were generally well educated and intelligent men, who, after leaving the college, go out as farmers. The time spent at the college was most agreeable, the Professor being a charming and sterling men.

While there I found my way to Mr. Heddon's. He seemed to me a very intelligent gentleman, very quick to seize an idea and appreciated the experience of others. He showed me his apiaries, although he was unfortunately suffering from bee-disease, which affects him in a very peculiar way, namely, by producing catarrh, so that he cannot open a hive himself without being attacked by this complaint. However, as I was there, he showed me how the hives were manipulated, the consequence being that he suffered considerably all the evening. He showed me the handling of the shallow hives, and how easy it was to find the queen. I ascertained that he brought his bees through the winter very unsuccessfully, and had lost as many as from 40 to 50 per cent. in wintering.

We discussed the merits of the Heddon and Stewarton hives, and in the course of conversation he stated that last year was a very poor honey season, which bore out the complaint of the Canadians who were over here in 1886. I cannot remember what he said was the average produce, but it was not more than 20 pounds a colony at any rate. I found in his district the honey season had been very bad, whilst in some parts of New York State the reverse was the fact, 60 to 80 pounds per colony being an average yield expected; but there were other districts in which not more than 10 to 15 pounds were obtained.

One gentleman (the President of an association) jokingly said that no one would believe I had been to the United States if I returned to England without boasting about something, and he further said if I came to him I could boast I had seen the apiary where nearly 1 pound of honey per colony had been obtained this year.

From Mr. Heddon's I went to Chicago, and met an old friend, Mr. Newman, who showed me over his place, which is in the city. Unfortunately, I did not let him know when I was coming, and, consequently, he was unable to get any bee-keepers to meet me, but he was most hospitable, taking me for a five hours' drive through the city, and showing me all the "lions" of the place.

From there I went to see Mr. Dadant. He is a Frenchman, who settled in America some years ago, and with his son carries on the business of bee-keeping. They also make a large quantity of comb foundation. Last year they turned out 70,000 pounds of foundation, but this year not more than 50,000 pounds, as the season had been such a bad one. It is the best natural-based foundation I have seen in America. They melt about 3,000 pounds of wax at a time, and in this way are able to get the color uniform. The foundation most in demand in America is the natural-base foundation made on the Vandervoort machine. They also produce a large quantity of extracted honey, and a little comb honey. They work for extracted honey just as we do, by storifying or putting one hive on another. Their hive is a little larger than the Langstroth hive, with supers about 6 inches deep. These frames are used for extracting. They have 400 colonies now. This year has been a very bad year, they having obtained only 9,000 pounds of honey. I think the bad season is demonstrated by the fact that their issue of foundation this year has been 20,000 pounds less than last year's.

From the Dadants' I went back to Chicago, and also spent a little more time at Lansing. From there we traveled on to Toledo to see Dr. Mason. He was out, but he visited me in the evening, and we had a chat about bees and other matters. I found him a very nice, agreeable gentleman, quite well up in bee-matters.

Mr. Cutting, Secretary of the Michigan Association, who is a very smart and energetic worker in our cause, accompanied him, and I regretted time did not permit me to stay longer to visit them.

From Toledo we passed on to Medina, where we saw Mr. Root and his son Ernest. Mr. Root is the editor of *Gleanings*, and he and his son made our stay there most pleasant. They are both very intelligent and anxious to pick up information. We spent a very agreeable time at Medina. Mr. Root is a very different kind of man from what I had pictured him. He is short, thin, and seems quite worn out with work. He has worked extremely hard, and has succeeded better than any one else on that side of the ocean in popularizing bee-keeping, and creating a demand for appliances. He employs 150 hands, making nothing but hives and appliances. Everything is turned out on a large scale. He has machinery for doing almost everything, and it was quite a treat going over his large factory and his yard. I met one or two Englishmen employed there, who seemed well satisfied with their lot. I found men hard at work when I visited the manufactory, one making the metal corners for the frames was stamping them out by a very ingenious machine for the purpose.

At Mr. Root's, as I had my microscope with me, I was enabled to clear up some points respecting foul brood. He knew all about foul brood practically, but had not been able to make any close investigation of it microscopically. I must tell you that wherever I went I found the microscopes in use inferior to that I had with me. Even Prof. Cook had not seen the germs themselves, although he had a mounted slide containing specimens. When I showed him the bacillus under my microscope with a one-twelfth Powell's oil immersion, he was much interested. There was no instrument in the college with such magnifying power. Mr. Root told me he had never before seen foul brood in its different stages The disease over there is exactly similar to what our bees have here.

From Mr. Root's we went to several other places, Niagara among the number, and afterwards met by invitation the Canadian bee-keepers at a large meeting and exhibition of hives and honey in Toronto. The exact quantity of honey exhibited I cannot remember. The exhibits of two hive-manufacturers, the D. A. Jones Company and Messrs. Gould, occupied a great deal of space, but the honey was rather crowded, like the Canadian exhibit here, which militated against the attractiveness of the show. The clover and lime honeys were excellent. As regards the lime honey I think it is superior to ours, the Canadian climate being better suited for its production, but clover honey is as good here as over there.

They had an extraordinary, but, to my mind, somewhat objectionable way of selling honey at the show. A section was cut into four pieces, and each piece offered for sale separately, 5 cents being charged for a quarter. You would see people distributed all over the show biting at these pieces of comb, and eating it as they walked along. By this method a large quantity of honey was got rid of, but it was not pleasant to see the people pushing about in a crowd and messing each other with the sticky substance. I expressed my opinion at the time to some of the bee-keepers, but they assured me it would be impossible to sell the honey at that exhibition on any other plan; and as the all-important object at these shows is to sell the honey, I suppose the custom is likely to continue.

At this meeting I had the opportunity of seeing a large number of the Canadian bee-keepers. They came from districts far and wide. Mr. Young, editor of the *Norwegian Bee Journal*, was there at the time, and we were both very hospitably entertained by our Canadian friends. We also met Mr. Holtermann, our Canadian correspondent, Messrs. Pringle, Emigh, Alpaugh, Hall, Rev. W. F. Clarke, Mr. McPherson, Mr. McKnight, Mr. Corneil, and others. I was honored by the presentation from the bee-keepers of Ontario, of an address, and also a walking-stick with a gold top, which lies here for your inspection on the table. The address has appeared in the columns of the *Journal*, where the walking-stick cannot be inserted.

I am glad to say that everywhere we went in Canada and the United States we met with a most hospitable reception. We became on good terms at once, our co-workers over the water doing their best to make our time agreeable; they showed us every thing, and our difficulty was to find sufficient time to see all there was to be seen. We might have stayed several days longer at each place, and been made most comfortable and welcome, but it was not practical under the circumstances.

At the Toronto meeting of course I was asked to say something about the British Bee-Keepers' Association, and I made a special point of describing briefly the working and organization of the association. They were very much interested to hear the record of our work and system, as they have nothing of the kind over there. Their associations are merely associations of bee-keepers in certain districts, who meet for the purpose of talking over matters connected with their work.

After the pleasant time spent at the Toronto exhibition, we went to see Mr. Hall, of Woodstock, Vice-President of the Ontario association, one of the largest Canadian honey-producers. He has 400 colonies, and has produced as much as 200 pounds per colony. Of course he is not able to do that regularly, 80 to 100 pounds being a good average. He makes bee-keeping his sole business, and depends upon it entirely for a living, as many others do in America: Capt. Hetherington is one, for instance; he was a captain in the army during the rebellion. He started bee-keeping, and being fond of it, made so great a success that he has managed to live sufficiently well and bring up a family on the proceeds of the business.

Mr. Heddon has made bee-keeping his only means of subsistence, besides lately the editing of a local paper. He had very little money at starting. Mr. Hall was obliged to give up the business he was in owing to bad health, and took to bee-keeping as a livelihood. He is bringing up his family upon it. As a business, speaking generally, it answers very well in America.

At Mr. Hall's I picked up a great many ideas, but I cannot describe everything on the spur of the moment, having seen so many different things: I shall, however, be able to enter more into detail in the *Bee Journal*. From Mr. Hall's I went with him to see Mr. Pettit, President of the Ontario Bee-Keepers' Association. As he was not able to be present at the Toronto meeting, I thought it was only right I should go and see him, and I stayed with him from Saturday to Monday, and spent a very pleasant time there. His hives are very similar to ours, and he has adopted a frame almost the size of our standard, which he finds answers quite as well as the deep frame he had been using. He works with sections of 1⅜ width without separators.

From thero Mr. Pettit accompanied me to see two or three other bee-keepers. who lived between his place and St. Thomas. One of these, Mr. Alpaugh, a young man, I found to be an advanced bee-keeper of great intelligence. He is the inventor of the machine for fixing foundation in sections, which I will show you at work here to-night, and which has been sent by Mr. Corneil. You will see it is an ingenious contrivance, but, unfortunately, I cannot show you the working of it as well as he did himself.

From Mr. Pettit's we went through New York State to Washington, and from there to Philadelphia. In Carpenter's Hall, at the latter city, we met with a hearty reception. This Hall is of great historical interest, for it was there that Washington sat, and the first Congress met, and the Declaration of Independence was signed.

At Philadelphia, we made the acquaintance of several scientific bee-keepers. I believe there are more scientific bee-keepers in Pennsylvania than in any other part of the United States. Dr. Townsend is President of the association.

Mrs. Thomas, who goes in actively for bee-keeping there, asked if we had any lady bee-keepers in England. On my replying, "Yes," she said we ought to make more of that fact in the *Bee Journal*, because such notices would simulate other ladies to undertake the same pursuit. Although it might do in America, bee-keeping on a large scale was not suitable for ladies in England (laughter.) This may appear strange, but there is, undoubtedly, a difference between the mode of life led by ladies in America and in this country. American ladies are used to hard work. In every household every lady does her share of work as much as the man does, and performs her part of the household duties. There is a great difficulty in getting servants there, and she has to do cooking, sweep the rooms, or dust the furniture. Gentlemen also assist in the household duties, sometimes cleaning the boots. You will, therefore, see that what American ladies might do ours could not.

I must not forget to acknowledge our indebtedness to Dr. Townsend, Mrs. Thomas, and Mr. Arthur Todd, for their kindness. The latter gentleman took us about and showed us everything of interest in Philadelphia. It was there I met our friend, Mr. Hooker's son, who also kindly showed us about. From there we traveled back to New York, and across the ocean home.

I am afraid in the foregoing remarks I have only given a slight idea of what we saw and did, and the districts we have traveled over, but the pages of the *Bee Journal* shall give you fuller particulars from time to time. Wherever I took my microscope it was a source of great interest and delight, and the preparations were attentively examined. I have already told you how hospitably we were received everywhere both in the United States and Canada. All bee-keepers seemed pleased to meet me, not only as a brother bee-keeper, but as the representative of the bee-keepers of this country. I assured them that the compliments paid to me would be appreciated by the members of our association here, and I can now only repeat my expression of thanks for all the kindnesses I received on the other side of the Atlantic.

Our trip was a very enjoyable one, although traveling is not so easy there as here, and one becomes wearied by the long distances. Of course, my wife could not bear the fatigue of accompanying me everywhere. Accommodation is not so good there as here; sometimes, in out-of-the-way places, we have had to sleep on the floor, owing to unwelcome bed-fellows. In conclusion, let me say I shall be happy to give you any information in my power, if you will ask me questions on any specific points. (Loud and protracted cheering.)

After answering some questions, the following resolution was unanimously carried :

That this meeting expresses its best thanks to Mr. Cowan for his kind and lucid description of American apiculture in the United States and Canada, and also desires to record its sense of the kindness and hospitality shown to him as the representative of British bee-keepers by American and Canadian bee-keepers.

Mr. Sambels proposed that a copy of the resolution should be sent to the AMERICAN BEE JOURNAL, the *Canadian Bee Journal*, and *Gleanings*, which proposition was seconded and supported by two gentlemen among the audience, and carried unanimously.

We are very sorry that Mr. Cowan could not have remained long enough to have attended the present union meeting of the bee-keepers of North America, where he would have received a cordial welcome, and made the acquaintance of hundreds more of our representative apiarists than he could have met in any other way.

One of the resolutions passed by the "North American Bee-Keepers' Society," after receiving the report of its President, who had officially visited European apiarists in 1879, reads as follows :

Resolved, That this Association rejoices in the cordial and enthusiastic reception accorded to President Newman by the apicultural societies and leading bee-masters in Britain and on the European continent, trusting that the harmonious feeling evinced may always be cherished by the bee-keepers of the world towards each other. This Association hopes that the friendly visit which has been made, will ere long be returned by some one or more of prominent apiculturists of Europe, to whom it will be our pride and pleasure to extend as hearty a welcome as that given to our representative.

The latter part of the above resolution has been realized by our having the opportunity of showing how we welcome our representative European brethren in the persons of Mr. T. W. Cowan, of England, and Mr. Ivar S. Young, of Norway, as well as the late Mr. James Anderson, of Scotland, who made us a visit in 1882.

Now we would gladly welcome many more of our European apiarists whose names are "household words" the world over ; and whose personal acquaintance, in nearly every instance, we made seven years. ago, viz : Dr. Dzierzon, the Baroness of Berlepsch, Hern Vogel, Hilbert, Dennler, and Gravenhorst, of Germany ; Karl Gatter, of Austria ; Visconti de Saliceto, Count Barbo, and Dr. Dubini, of Italy ; Ed. Bertrand and Pastor Jecker, of Switzerland ; L'Abbe du Bois, and J. De Layens, of France ; Dr. Butlerow, of Russia ; and many others too numerons to to mention.

London Journal of Horticulture.

Preparing Bees for Winter.

A. PETTIGREW.

Feeding bees at some seasons has of late years been necessary and important. Those who have attended properly to this work have been the most successful and have had but few, if any, losses by death from starvation. If any reader has not given his bees enough to keep them till March, I would advise him to do so as soon as possible. Autumn feeding, in my opinion, should be completed in September, for more than one reason. The quieter bees are after September ends, the better ; the quieter they are, the less honey they consume. Feeding excites bees to fly abroad, and in doing so many colonies may be lost during cold or inclement weather, and feeding often excites the bees to set eggs widely in mild autumn weather. Cold weather may come and cause the bees to draw themselves within the lines or limits of their brood, and thus leave it to be chilled to death. Foul brood results, and ultimately the ruin of the bees, from feeding at untimely seasons.

Colonies this autumn are, generally speaking, strong in bees, which have, during the last few weeks, consumed much of their winter stores. In mild winters and open weather the bees in very strong colonies require or eat from 12 to 15 pounds of stores from the middle of September till the middle of March. The bees of small and weak colonies will not consume half as much.

While autumnal feeding is going on, the entrances of hives should be contracted, in order to prevent robber bees from entering and extracting the honey.

After feeding has been completed, the boards of the hives should be well cleaned. The wax-moth, next to foul brood, is a destructive pest in apiaries. It has been said that Langstroth recommended wooden hives because the wax-moth could find no resting place in them; but it is now well known that the wax-moth is no respecter of hives, and breeds as fast in wooden as in straw hives. The scales of wax that drop on the boards of hives are gathered together and form nests for the maggots of the moth. If either earthenware or iron vessels used for feeding purposes be left for a short time on the centres of the bottom-boards, young moths will soon be found beneath them as well as around the edges of the hives. The maggots of the moth feed on their nests—viz., the fallen or lost scales of wax, till they are able to crawl to and lay hold of the combs of the hives. Amongst the combs the maggots make sad havoc, for they live upon pure wax and consume much of it.

Covering hives well and warmly for the winter months is the finishing work of the apiary, and though last in time it is not least in importance. My preaching on this point is better than my practice, for my hives are never sufficiently covered in winter and spring. A quantity of material of some kind is necessary to cover sixty large hives. Bees are tiny, fragile creatures, and require attention in cold weather. Both cold and wet are hurtful to them. Hives should have good, warm under-coverings, and their outer coverings should be waterproof. Not a drop of rain should be allowed to touch either hives or boards after September, for if either hives or boards are damp in winter, frost may convert the moisture into ice.

Hives in bee-houses are easily kept dry and warm in winter, and hence my prejudices against bee-houses grow less and less. The protection of a good, warm covering should be given to hives either with or without bee-houses, and such covering should not be removed altogether from hives till the end of April.

All covers of all kinds of hives should be porous enough to let the moisture of the hives pass through; otherwise it would be condensed, keep the hives damp, and do harm. Warmth, dryness, and ventilation should all be considered in covering hives for winter and spring.

For the American Bee Journal.

Results of the Season of 1887.

A. HOKE.

On page 235, I reported 32 colonies in fair condition. I lost one colony by spring dwindling, sold one, lost 4 by robbing and queenlessness, and had an increase of 2 colonies. I now have 28 in winter quarters, all well packed in sawdust and planer shavings.

One colony is queenless, and, of course, it will be lost, but it will not starve. I lost its queen in this way: It was light in bees. A bee-keeper took what little honey a colony had, and gave me the bees. I put them in at the entrance between sundown and dark, with no loss of bees. The next day the one queen was brought out dead; the third day after, the other queen was killed also.

I never took so much pains to care for my bees as I have this fall, and if I get them through the coming winter as well as I did last winter, I shall owe the editor a vote of thanks for urging bee-keepers to take good care of their bees.

My crop consists of 200 pounds of comb honey, and 100 pounds of extracted. These results might give a younger bee-keeper the "blues," but I have faith that all will be right in the end, and will not abandon my bees.

I have also been working on a device to make honey into vinegar in a short time. My device holds one-half gallon, and in warm weather in 24 hours it will be brought on so far that in two to four weeks it will be first-class vinegar. The beauty of it is, that one can stop the making of the vinegar at any time, and for as long as he pleases, while other devices have to be fed often or be unpacked.

Union City, Ind., Nov. 7, 1887.

Prairie Farmer.

Judicious Use of Smoke on Bees.

W. M. KELLOGG.

Every owner of a colony of bees should have a smoker; it will pay for itself every year. Who does not remember the momentous times of "robbing the bees," when the victim prepared himself for the fray by stuffing his pants into his boot-tops, tying his big coat around him, gloves on his hands, and if he possessed no veil of any kind, his face all tied up so that only one eye had a little peep-hole, and nine chances to one that bees enough got into that same peep-hole to make his face swell up till it looked like a Chinese idol.

In this garb the honey was forcibly taken away from the bees—in very truth robbing them—which they very naturally resented with all their little might, not so very small either when we consider the weight of evidence a bee's stinger carries with it. But the honey was gotten off at the expense of a very angry and sweaty man; everybody and everything about the place, even to the sooty iron top to the chimney, stung out of their senses; the dog sent yelping under the barn, and the man locked out of the house because he "had so many bees on him," goes into the wood-shed to dissolve, pick out the stingers and swear, and the bees are so cross for days after, that no one dares go near them.

Now all this is changed by the use of the little smoker. A piece of rotten wood is lighted and placed in the barrel; the bellows is squeezed a few times to see that it is going well, and with no veil or gloves on, the bee-master goes to the hive from the side or rear, and gives two or three puffs of smoke in at the entrance; waiting a few moments for the bees to fill themselves with honey, the cap is taken off, then the corner of the quilt or honey-board (if of a movable-comb hive) is lifted, and a few light puffs given as it is taken off, and with slow, even motions, the combs can be taken out, the needed work be done, and the hive closed again.

With the box-hive it can be turned over and examined from the bottom, or the boxes taken off for use or sale. It is all done in a few minutes, no fuss, and in a short time the bees are working as merrily as ever with nothing to show that their hive had been touched.

But there is much injudicious use of the smoker when the poor bees are smoked till they do not know what to do, and run wildly all over the hive, the ground, and the bee-keeper; the queen stops laying, and for the time being the colony is as badly demoralized as was the one without any smoke. I have seen a man who called himself a practical bee-keeper, smoke a colony of bees till I felt sick for the poor little bees, and said, "For pity's sake, hold on!"

Oquawka, Ills.

The Odorless Foul Brood.

We have taken the following from the London *Journal of Horticulture*. It is written by a Hallamshire bee-keeper, and will be read with interest:

Amongst all the infectious diseases from which bees suffer, the above is the most insidious. Phenol, salicylic acid, camphor, and in fact all and every remedy which has been known to cure the offensive form of foul brood, is powerless to cure or prevent the odorless form of the disease spreading. Its appearance is exactly like the other—viz., cappings of cells sunken, dark-colored dead brood, coffee-colored and ropy, but it has no smell whatever, hence it is very apt to cause no alarm, and by interchanging combs one may get it into every colony before its nature is suspected, particularly when combs are changed in the autumn and spring to save feeding.

I write this from bitter experience. I first noticed it in 1881, but as all authorities agreed that foul brood could not be mistaken on account of its offensive smell, and that it was the only infectious disease bees were liable to, I thought it must be chilled brood, then thought no more of it. In 1882, by changing combs, I had it in nearly every colony—about 18; I then began to experiment with it. First, I shaved the caps off diseased combs, and put them into healthy colonies to see if it was infectious, and as the first brood hatched out of the diseased cells apparently healthy, I at once concluded that it was not infectious. In this I made an unfortunate mistake, for had I noticed the colonies until after the second batch of brood began to hatch, I should have not only found it in the comb introduced, but all through the brood-nest.

I then took the queens from the diseased colonies, and introduced them into healthy ones to see if the disease was in the queen alone, and as such colonies at once became diseased, I at once concluded that the disease was congenital, and not really infectious. Here I made another error. I was supported in this in breeding queens in small nuclei, which turned out diseased, while those bred in strong colonies proved healthy. Here let me say, that thinking the disease was not infectious, I may have unconsciously used infected combs in the nuclei, and combs free from taint in the full colonies.

In 1884 I thoroughly tried Hibbert's plan, of fumigating with salicylic acid, feeding the acid in syrup (Cowan's plan of curing foul brood), also placing large pieces of camphor in the hives. I never saw much of the disease in the spring, the reason being that every autumn I get many driven bees and young queens, which were chiefly the bees that passed through the winter, and which is explained in the sequel.

In the spring of 1885, still thinking the disease lay alone in the queen, I sent a native British queen, that I had obtained with driven bees the previous fall, that was producing foul brood, to Mr. Frank Cheshire, who at once wrote back, saying that her ovaries were full of baccilli, which was quite new to him; that the baccilli lay in strings, and resembled bits of sticks crossed about anyhow, presenting a striking contrast. He asked for samples of the brood, which I sent him, and in which he found the same baccilli.

During the summer I sent Mr. Cheshire a number of queens that I knew had produced healthy brood and bees in the spring—two were with swarms hived on perfectly empty but tainted combs—and he found the same baccilli in the ovaries of every one. One I sent him was from a colony that had not more than 14 or 15 foul cells in all, and he said he examined her ovaries without seeing any baccilli, and was going to report that she was healthy, when he examined the last portion and found the same baccilli. This was a most important report to me in understanding this disease, and I think I was most fortunate, as well as the bee-keeping world, in having the services of such a skillful microscopical dissector as Mr. Cheshire.

Towards the close of the year 1885, I decided to try Mr. Cheshire's phenol remedy for foul brood, which he claimed to be a certain cure; so I thought if it will one kind of baccilli, why not another? and as, owing to the weather, no honey was coming in, I considered I had a splendid opportunity to get rid of it without destroying a comb. As I had lots of driven bees, all healthy, I destroyed the old infected queens, united these, and fed upon phenolated syrup. The combs were filled with it; 18 colonies were packed up for winter reduced from 26, and 20 lots of driven bees were added; 3 of these 18 never had been diseased, and they were the only healthy ones I had in the spring of 1886. The rest were either dead or weak, and all that were alive were diseased, and to make matters worse, the 3 healthy ones found a way into one of the colonies that had died, and cleared out the phenolated syrup from the combs, and they also became diseased.

This circumstance was valuable in its way, as it proved the spores of the disease can be carried in the honey from an infected hive. I concluded that the spores went in the honey to the queen, and as aliment to the eggs, which became foul, producing in turn spores to again go to the queen, and so pass through more eggs, in which I was confirmed in the fact that when bees are bringing in honey the colony increases in strength, and shows little traces of disease; while when it ceases, and the queen has to be fed from honey stored in infected combs, the bees rapidly dwindle and the brood becomes very foul. Therefore, I reasoned, that if I turned the queen and bees into an empty hive or box, and if no honey was coming in, feed them for four days to induce the bees to build comb into which the queen could deposit her diseased eggs, and before they began to hatch turn the queen and bees into a clean hive on starters only, I ought to get clear of it, and even cure the queens. This proved to be correct, for every case so treated has proved a cure, even curing in a most complete manner every diseased queen.

I have at the present time several queens whose mothers were diseased last year, and now I have over 30 fine, strong, healthy colonies inhabiting hives, frames, and quilts that have had diseased colonies in them, yet in looking over them this fall I could not find a single "foul" cell.

Having described the disease, I will now describe how to stamp it out if it is noticed in the spring or summer: Turn the bees and queen into an empty hive or box on the old stand, allowing them full liberty to fly where they wish in search of stores; if they can get home freely they will need no more attention for four days; if not, then they must be fed for four days. In the meantime, extract the honey from the combs, which, after straining, will be all right to eat, but the greatest care must be taken against any bee getting a sip of it.

Then melt the combs for wax—there is nothing gained in trying to save the brood—bake or boil every frame, quilt, and hive; if you have neither an oven nor boiler to hole the latter, rear it against the kitchen fire until the inside at least is well baked; now fix foundation-guides not more than half an inch deep in the frames, and at the end of four days put it on the old stand, dump out the bees from the hive or box, and let them run into the hive, and at once destroy the combs they have built. If honey is to be had, the work is done; if not, they must be fed, taking great care that all food and feeders are first boiled.

The plan I here describe is quite novel, never having, to my knowledge, been advocated as a means of curing foul brood or other forms of disease; though a plan much like it called the "starving" process has been much advocated. But, according to many reports, it seems rather uncertain; and well it may, as bees starve according to the amount of activity they exhibit. Thus they may drop down exhausted in 24 hours, or they may show no signs of weakness at the end of 14 days, as I soon found in my experiments; hence the plan I recommend is more simple and certain.

England, Oct. 20, 1887.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 16.—Western, at Kansas City, Mo.
J. A. Nelson, Sec., Muncie, Kans.

Nov. 16-18.—North American, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Nov. 19.—Marshall County, at Marshalltown, Iowa.
J. W. Sanders, Sec., LeGrand, Iowa.

Nov. 25, 26.—Pike Co. & Ills. Cent., at Pittsfield, Ill.
W. T. F. Petty, Pres., Pittsfield, Ills.

Nov. 26.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Plenty of Winter Stores.—M. H. Freeman, Olustee Creek,⊸ Ala., on Nov. 4, 1887, writes:

In my report on page 234, it should have read *ten colonies* instead of "100 colonies." I have increased them to 15 colonies this season, and have taken 400 pounds of extracted honey. This makes an average of 40 pounds per colony, spring count. They have probably enough natural stores for winter, if it is not unusually long and severe; but I intend to feed them some sugar syrup yet, as I think there can be no danger of an oversupply of winter stores.

Wintering Bees.—Allen Bartow, Milan,♂ Ohio, on Nov. 8, 1887, says:

I wintered my bees last winter without the loss of a colony. There were very few dead bees at the hive-entrances at any time, winter or spring. My hives are of the Simplicity style. I make cases of boards 3 inches higher, and 6 inches longer and broader than the hives, with movable cover and bottom. They are perfectly water-tight. I place the hive on the bottom board 2 feet from the ground, and the case over the hive, leaving the hive-entrance clear so that the bees can go in or out at will. I pack all the space between the hive and case with dry leaves of any kind; then I cover the case and weight it down to keep the wind from blowing it off. I keep the hive-entrances open when covered with snow, and I pay no attention to top ventilation, as I regard it as being injurious.

Results for Ten Years.—Mr. L. D. Ormsby, Pierpont,♂ O., on Oct. 21, 1887, writes:

My report for ten years of keeping bees and producing honey is as follows:

	Colonies.					Pounds Honey.	
	Spring.	Fall.	Sold.	Died.	Bo't.	Comb.	Extract'd
1878	1	3	..	3	2	....	....
1879	2	9	..	..	..	....	....
1880	9	31	1	..	..	900	100
1881	30	54	..	..	..	1,800	700
1882	54	80	12	..	..	4,500	1,000
1883	68	100	17	45	2	4,000	1,400
1884	40	81	8	27	..	3,100	1,100
1885	46	94	15	3	..	2,800	1,300
1886	77	83	1	14	..	3,300	1,200
1887	68	76	..	..	..	2,100	800
	395	612	54	92	4	22,500	7,600

I have had 30,100 pounds of honey, which gives an average of over 76 pounds per colony, and the average price of 15 cents per pound, making something over $11.40 per colony as a yearly average. I winter my bees on the summer stands packed in chaff and sawdust. I owe many thanks to the editor and correspondents of the AMERICAN BEE JOURNAL for my success in bee-keeping.

Bees in Winter Quarters.—H. O. Kruschke, Deuster,⊙ Wis., on Nov. 7, 1887, says:

My bees stored about 400 pounds of surplus honey, and have an abundance for winter stores. I put 52 colonies into winter quarters on Oct. 25, the earliest that I ever put bees in for the winter. The scarcity of honey has advanced the price of it. I hope it will be more plentiful next year, even if prices fall a little.

Report for 1887.—J. A. Reeds, Hinesborough,○→ Ills., on Oct., 14, 1887, writes:

I have 185 good colonies of bees, and 1,500 pounds of honey was all of my surplus crop. I think that nearly all of my colonies are pretty well supplied with honey, at least enough for winter, I think.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL
Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

California Excursions.

At frequent dates of each month, the Burlington Route, C. B. & Q. R. R., runs excursions to San Francisco, Los Angeles and San Diego, at greatly reduced rates of fare. By the "Burlington" one can have a choice of routes to California, as its lines from Chicago, Peoria and St. Louis extend to Denver, Council Bluffs, Omaha, Saint Joseph, Atchison and Kansas City. Should one desire to make the return trip via Portland, Oreg., they can continue their journey south or east from St. Paul or Minneapolis, over the Burlington Route, to Chicago, Peoria or St. Louis. For California excursion dates, rates, tickets or further information, apply to ticket agents of the C. B. & Q. or connecting railroads, or address Paul Morton, General Passenger and Ticket Agent, Chicago, Ills. 43A4t

◆

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time.

Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 25	1 20
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the AMERICAN BEE JOURNAL. Subscribe *now*, and get the rest of the numbers of this year **free**. The sooner you subscribe the more you will receive for your money.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.

BEESWAX.—22@23c.

Nov. 8. S. T. FISH & CO., 189 S. Water St,

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections or about, brings 18@20c., some fancy shipments are held at 22c.; 2-lb. sections, 16@18c. Dark honey is slow sale. Extracted, 7@10c.

BEESWAX,—22@23c. R. A. BURNETT,
Oct. 20. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections sells as high as 19c. A few lots are held at 20c. Demand increases as fruit becomes scarce.

BEESWAX.—23c.

Oct. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.: 2-lbs., 17@18c. White clover extracted, 8c.

BEESWAX.—25c.

Oct. 24. A. C. KENDEL, 115 Ontario St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, 6@6½c.; amber colored and candied, 5¼@5¾ cents. White to extra white comb, 15@17c.; and amber, 10@12½c. Supplies and demand are small.

BEESWAX.—17@21c. for good quality

Oct. 15. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.

Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.

McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@16c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.

BEESWAX.—21 to 22c.

Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.

Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.

Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@8c. per lb. Choice comb, 18@20c., in the jobbing way. The demand is fair for honey of all kinds, and keeps pace with arrivals.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Nov. 10. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.; 2-lbs. glassed, 10c. Extracted, white, 9@10c.; dark, 6@7c. Demand good, market firm.

Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs.. 19@20c.; fair 1-lbs. 18c.: fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.

Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails. 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.

BEESWAX.—22@25c.

Oct. 26. A. V. BISHOP, 142 W. Water St.

BOSTON.

HONEY.—New crop. 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. Demand fair.

BEESWAX.—25 cts. per lb.

Oct. 22. BLAKE & RIPLEY, 57 Chatham Street.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Advertisements.

2-lb. Square-Glass Honey-Jars.

WE have a New Supply of **Two-Pound Honey-Jars**, and can now supply our friends on short notice. Address,

CHAS. F. MUTH & SON,
Freeman & Central Ave., CINCINNATI, O.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

The Chapman Honey-Plant.

PRICE OF THE SEED:

4 Ounces $1 00
10 " 2.00
1 Pound 3 00

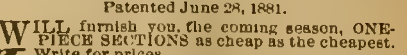
Larger quantities by Express at Reduced Price. Sow very early in the spring or late in the fall. It vegetates in a low temperature. I have twelve acres that will bloom next spring. I shall sow two acres this fall. It is a success! H. CHAPMAN,
44C4t VERSAILLES, N. Y

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

J. FORNCROOK & CO.,
MANUFACTURERS OF THE
"BOSS" One-Piece SECTIONS,


PATENTED. JUNE 28 1881.

Patented June 28, 1881.

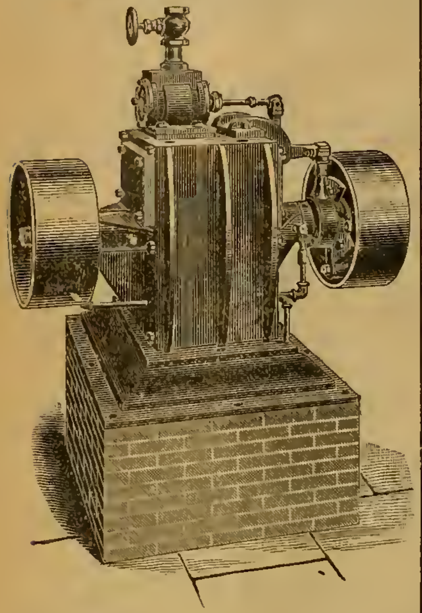
WILL furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.
Watertown, Wis., Oct. 25, 1887.

A NEW ENGINE.

(ENTIRELY NEW INVENTION.)

WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



NO high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

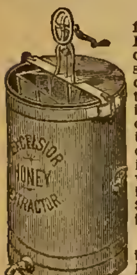
Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

☞ Send for a Circular. Address,

HENRY RICKEL, Pres.,
44Atf CEDAR RAPIDS, IOWA.

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR
HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches	$8 00
For 2 Langstroth "	10x18	"	8 00
For 3 " "	10x18	"	10 00
For 4 " "	10x18	"	14 00
For 2 frames of any size,	13x20	"	12 00
For 3 " "	13x20	"	12 00
For 4 " "	13x20	"	18 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
?1A1y Agricultural College, Mich.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

W. Z. HUTCHINSON,

Flint, Genesee Co., Mich.,

HAS published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column

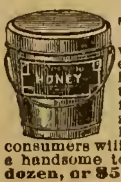
---

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

NEW ONE-POUND HONEY PAIL.



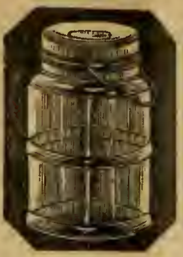
THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

WORK FOR ALL. $50 A WEEK & expenses paid. Outfit worth $5 & particulars free.-**P. O. Vickery, Augusta, Me.**
39A8t

GLASS PAILS

FOR HONEY.



THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

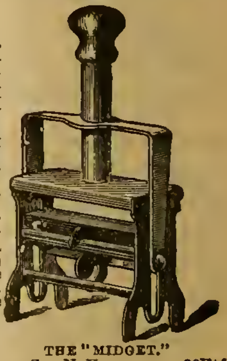
Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	$1.60
" 2 pounds " "	.....	2.00
" 3 " " "	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

SELF-INKING RUBBER-STAMP,

2,000



Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,

THE "MIDGET."

GEO. T. HAMMOND,
BROCKPORT, Monroe Co., N. Y. 26Etf

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

Bee-Keepers' Cards.

HEAD-QUARTERS!—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.

Address **J. H. MARTIN,**
4A1y HARTFORD, Washington Co., N.Y.

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

The American Apiculturist

WITH SUPPLEMENT.

A full description of the

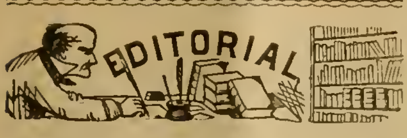
Bay-State Reversible Bee-Hive

in the November Number. COPIES FREE.

Address, **HENRY ALLEY,**
44Atf WENHAM, Essex Co., MASS.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.



Vol. XXIII. Nov. 23, 1887. No. 47.

The Union Convention at Chicago last week was attended by over a hundred enthusiastic and well-posted apiarists. The meeting was the eighteenth of the North American Bee-Keepers' Society, and the sixth of the "Northwestern."

By the list of names found on page 742, it will be seen that quite a number of prominent apiarists were present and took part in the deliberations.

The discussion was lively on almost every subject—three or four often claiming the recognition of the President at the same time. In addition to those who were reporting the proceedings for the bee-periodicals, there were five or six of the Chicago daily papers represented, and reports were published every day by the metropolitan papers. Some of the latter tried to be "funny" at the expense of those in attendance, as will be seen by the following extracts from some of them. One starts his report thus :

> The bee-keepers of North America, who are meeting in the ladies' ordinary of the Commercial Hotel, are mighty clever people. They all look like wide-awake men, and they make one think it's Sunday. Not Sunday in Chicago, but Sunday in the old white meetin'-house "jist acrost the crick over yonder, fornenst Hanksee school-house." They've all got their store-clothes on, and have a Sunday, clean-shaved upper-lip, and their collars and shirts are snowy white—glossless and spotless like the newly fallen snow; not the yellowish, shiny things town laundries send home Saturday night.
>
> Then they all seem to have that handiness with tools that was once the characteristic of Americans, but it is fast disappearing with the march of progress. They've all got that knack of making things, and they look at the new wrinkles in bee-hives with a keen appreciation of every bit of ingenious contrivance, and say with a kindly sort of envy, "Gosh ! why d'nt I think o' that ? Dod burn it all, aint that 'cute ?"

Then after some more foolishness, that reporter introduces Brother A. I. Root, editor of *Gleanings*, in this style :

> There was one man there with a visored fur cap on, pushed back on his head, with strong wrinkles round his eyes because he has laughed so much all his life, and an even white set of teeth. These old bee-keepers would walk up to him and ask : "Are you A. I. Root ?"
>
> "Yep."
>
> "Well, howdy," and the bee-keeper would jerk him by the hand with such fervor that one feared in the exuberance of his cordiality he would pull Mr. Root's arm out of the socket.

He then says that he tried to puzzle Mr. Root with the old Wiley *lie* about "making combs of paraffine and filling them with glucose ;" but even according to his own silly story, he "barked up the wrong tree," when he assailed our friend and co-worker on that subject. He is represented as making this reply :

> "Artificial honey ! My boy, did you ever eat any artificial strawberries or manufactured eggs ? They used to say that they had got eggs manufactured so that they would hatch out, but that the chicks had no feathers. And the newspapers had all sorts of pretty yarns about comb honey being manufactured. I have offered a prize of $1,000 for a piece of comb honey artificially manufactured, but, although the offer has been standing several years, the $1,000 is still there, and our flag still floats. The strongest proof of this statement of mine is afforded by the present honey market. The drouth of last summer has very much diminished the honey crop. Here was the opportunity of the honey manufacturer. Why didn't he improve it ? Simply because comb honey can't be made by man, but only by bees. About every attempt to adulterate extracted honey with glucose and sugar has been a financial failure, too, and I'm glad of it. A fraud ought to fail."

This settled the reporter, and he was content to let Brother Root alone. He then tackled the President, and is reported to have asked him how many bees it took to gather his honey crop, and here is the answer he is said to have obtained :

> "The heaviest crop of honey I ever had," said Dr. C. C. Miller, who is the President of the Association, "was 16,549 pounds, and as nearly as I can estimate, it took about seven million bees to make it for me."

This rattled the reporter, and he subsided.

Now another reporter thought he must have some *fun*, and he starts his report of the proceedings in this way :

> A peculiar assemblage of about seventy-five persons, including half a dozen ladies, met in the ladies' ordinary at the Commercial Hotel yesterday morning. A few of them had the appearance of scientists and solid business or professional men, but the great majority wore a very countrified look, seeming to be of the class who, as a matter of precaution, should be provided with candles and lamps when they retire to rest in a city. On a table in the apartment was a large collection of odd and divers articles, cups and jars of peculiar shapes which were the centre of attraction, and of a large amount of discussion before the opening of the meeting.

Prof. Cook, Dr. Mason, and Dr. Miller took this "scribbler" to task, and politely told him if he could not make a fair report, he had better make himself scarce in that assemblage. Much merriment and applause was the result of some sharp hits between the latter two doctors—they are both jolly and full of *fun*.

Another "funny" reporter gives the following in any article in the *News*, illustrated by five of the familiar faces of the convention, viz : Dr. C. C. Miller, Thomas G. Newman, M. M. Baldridge, Mrs. L. Harrison, and Dr. A. B. Mason. Here is the introduction :

> Buzzing and flitting from corner to corner, gathering sweet morsels of knowledge from each other. the congress-room of the bee-keepers' convention looked yesterday like a vast hive. The bee-farmer is naturally of a sharp, stinging, and aggressive disposition, especially so when one touches upon his hobby—apiculture. He cares nothing—as a rule—for politics, though frequently he has a bee in his bonnet. He disdains all bees but those of honey-gathering propensities, and utterly eschews quilting-bees, husking-bees, or spelling-bees, though he says, concerning the latter, that "if a feller wuz consid'ble peart and spry-lookin' a purty fair article of honey might be gathered if the gal wuz willin'."

Another daily paper started the report of our proceedings in this manner :

> Appropriate to the time when rose-growers hold flower shows, and breeders and owners of blooded horses and prize fat cattle convene to compete for gold medals and blue ribbons, come the bee-keepers to hold their annual meeting in the convention city. They assembled yesterday at the Commercial Hotel, to the number of nearly a hundred, and their convention will last until Friday, inclusive, The convention includes gentlemen who have acquired a national reputation as experts in the delicate pursuit of bee keeping, and who are recognized authorities upon the natural and technical knowledge necessary to successful bee-culture. Among them are Dr. C. C. Miller, of Marengo, Ills., who devotes his entire time and attention to the management of a remarkably extensive and scientifically managed apiary of many colonies of the finest bees ; A. I. Root, of Medina, O., editor of *Gleanings*, and said to be the most extensive dealer in apiarian supplies in the world ; E. J. Oatman, of Dundee, Ills., representing the largers number of colonies, and the greatest yield of honey of any bee-fancier in the convention, and other well-known and representative bee-men.

Can these accounts do the pursuit of honey-production anything but good ? They call attention to "honey" and its production, and no matter how silly are some of the statements, they will be of value in calling attention to honey and its uses—they serve as advertisements for this pure sweet.

◆

Mr. R. F. Holtermann, editor of the *Honey Producer*, published at Brantford, Ont., and Mr. A. I. Root, editor of *Gleanings*, published at Medina, O., were present, and took part in the Convention. Both are very genial gentlemen, and appeared to thoroughly enjoy that re-union of bee-keepers.

Mr. Root had not been in Chicago for 18 years, and it had changed so much that he could not recognize it at any point. In fact, "the great fire" had occurred since then, and in the "up-building" so many magnificent and imposing structures had been reared, that there was nothing left to look familiar to one who had not seen it since the "blotting out" took place.

Brother Root must come oftener and *smile* on us and the city, and keep up the acquaintance and pleasure of meeting and conversing on interesting topics. These conventions help to keep up acquaintance, and promote harmonious action.

◆

The Enthusiasm at the Convention last week was kept up until the final adjournment. Toledo was selected as the next place of meeting, the time to be arranged by the executive committee.

The officers elected were as follows : Dr. A. B. Mason, Toledo, O., President : Mr. W. Z. Hutchinson, Flint, Mich., Secretary ; Mrs. L. Harrison, Peoria, Ills., Treasurer. Vice-Presidents : Illinois, Dr. C. C. Miller, Marengo ; Indiana, I. R. Good, Nappanee ; Florida, G. W. Webster, Lake Helen ; Iowa, Eugene Secor, Forest City ; Michigan, W. E. Gould, Fremont ; New York, G.M. Doolittle, Borodino ; Ohio, Miss Dema Bennett, Bedford ; Ontario, Canada, R. F. Holtermann, Brantford ; Wisconsin, Franklin Wilcox, Mauston ; Vermont, A. E. Manum, Bristol ; Quebec, Canada, H. F. Hunt, Seaton.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Quieting Uneasy Bees.

Query 495.—If bees are uneasy in cellars, how can they be best quieted ?—M. C. G., Ills.

By bringing the temperature up or down to 42° or 45°.—DADANT & SON.

It would depend upon what made them uneasy.—H. D. CUTTING.

That all depends upon what is the cause of that uneasiness.—JAMES HEDDON.

First endeavor to find out the cause. If too warm, reduce the temperature. —J. P. H. BROWN.

Keep the cellar at such a temperature that they do not get uneasy. A little experience will teach you how to do this.—G. M. DOOLITTLE.

If bees become restless in their hives, the temperature or ventilation, one or both, is wrong. To make the bees quiet, you must remove the cause.—G. W. DEMAREE.

It depends upon what causes the unseasiness, and of this we are not always positive; and when we do know, we do not always know what to do about it.—W. Z. HUTCHINSON.

By regulating the temperature. If the food and temperature are kept right, they will not become uneasy.—A. J. COOK.

It depends upon the cause of their uneasiness. It may be that they need to be warmer, or possibly cooler. Sometimes giving fresh air quiets them.—C. C. MILLER.

Ordinarily I should judge by cooling them off. I cannot speak from experience, however, as I have never wintered my bees in special depositories of any kind.—J. E. POND.

Take them out and give them a flight the first suitable day. If the cellar is too cool, raise the temperature. If large numbers of bees are leaving the hives and falling on the bottom of the cellar, nothing will give so much relief as a flight.—G. L. TINKER.

In order to quiet bees when quartered in the cellar for winter rest, and they become uneasy, it is necessary first to determine the cause of uneasiness. If they are too warm, cool the cellar. If they are too cool, and are trying to raise the temperature, raise that for them. If many are dying, give them a flight on some warm day. Fresh air and a chauce to void their feces will do them much good.—THE EDITOR.

Winter-Passages for Bees.

Query 496.—Are winter-passages necessary when bees are wintered in the cellar ?—Ohio.

No.—G. L. TINKER.

No.—DADANT & SON.

No; not if the cellar is warm enough.—W. Z. HUTCHINSON.

I never use them either in the cellar or out-doors.—G. M. DOOLITTLE.

No, they are not necessary; but I prefer a passage made over the frames under the quilt.—H. D. CUTTING.

They are not necessary if you place ½-inch sticks across the frames under the quilt.—J. P. H. BROWN.

I think not, though as cellars and winters go, they are doubtless well. —A. J. COOK.

I do not think that they are necessary in any case. Give an inch of space over the tops of the frames, and the same result will be gained without mutilating the combs.—J. E. POND.

As I said in my answer to Query, No. 493, I could never see that the winter passages either over the frames or through the combs were of any practical use whatever.—JAMES HEDDON.

The bees should be allowed in some way to go from one frame to another. If frames are shallow they may go under, but a good plan is to allow a passage over the frames. My bees always prepare their own passage-ways by building bits of comb above the frames.—C. C. MILLER.

I do not think that they are absolutely necessary, but I prefer to have some strips of wood or some pieces of corn-stalks between the quilts and the tops of the frames, so that the bees can pass over the tops of the frames from one space between the combs to another, without having to pass around or under the frames.—G. W. DEMAREE.

Winter passages are sometimes very useful, but they should be provided over the frames by using Hill's device, bent sticks or anything else to keep the quilt up from the tops of the frames, so that the bees may pass from one frame to another, to obtain food when it becomes necessary.—THE EDITOR.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For	50 colonies (120 pages)............	$1 00
"	100 colonies (220 pages)......	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; δ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ϙ southwest of the center of the State mentioned.

For the American Bee Journal.

Rearing and Introducing Queens, etc.

G. M. DOOLITTLE.

I see that it is still claimed by some, that as good if not better queens can be reared by taking the queen and brood away from a populous colony, and giving them eggs and young larvæ from which to rear a queen, as can be obtained by natural swarming. The advocates of this plan lay much stress upon the preparation of the colony, such as having removed the queen at a certain number of hours previous to the time of giving eggs or brood, cutting the comb containing these eggs in just such a form, etc.; but after years of trial, I have never yet succeeded in getting as good, prolific, long-lived queens reared in a queenless colony, as I get where the colony rearing queens has the old queen or mother with them, as is the case with cells built during natural swarming.

There seems to be a certain haste or rushing through of the larvæ for a queen in a queenless colony, which is the means of shortening the life of the queen which is to come from such larvæ.

This great rushing of things never happens where a laying queen is in the hive during the rearing of a queen. I have noticed for years, that in case of supersedure, a queen that was fed royal jelly, and hatched from the cell while the old queen was still living, would prove 25 per cent. better than would a queen reared at the time of the death of the old queen.

Queens reared when the old queen is present, often leaves a lump of royal jelly as large as a pea in the bottom of the cell after emerging, while it is a rare thing to find one-fourth of that amount in any cell where a queen is reared by the removal of the queen by any means. It seems to me that if the friends of any other theory would carefully look into the matter, they would talk less about "artificial" queens being as good or better than those reared during natural swarming.

GIVING QUEEN-CELLS TO NUCLEI.

Again, it is recommended to form nuclei the evening before the bee-keeper wishes to give the queen-cells to them. This advice I caunot understand, for with me queen-cells given in that way will be nearly all destroyed if unprotected. If I recollect aright, Mrs. Harrison once wrote that she could not successfully introduce queen-cells unless the nucleus had been queenless at least 48 hours previous.

This was exactly my experience until I invented the "queen-cell protectors" which I use. With these I succeed in getting nearly every queen accepted (which is in the cell at the time that it and the protector is placed in the nucleus), for the "protector" prevents the bees from destroying the cell by gnawing into the side of it. I really wish that queen-cells could be introduced safely to a colony 12 hours after a laying queen is removed, for it would save much valuable time and a good deal of extra work.

INTRODUÇING VIRGIN QUEENS.

Then again, I find this statement in print, and coming from quite a large bee-keeper, and one who should know what he was saying: "If the queens have hatched on your hands, and you have been fortunate to have saved them, all you need to do is to simply let one run in at the entrance of the hive. The bees will not harm or molest her in the least." I would give $100 in a minute to know that this was a fact, and that such a thing could be done by the average bee-keeper. Hundreds of us know that this is not truth in their cases.

After years of careful trial of all the known plans for introducing virgin queens, I must say that all have so virtually failed that they in no way can be called a success, unless the colony or nucleus has been queenless from 3 to 5 days. By a continual smoking of the bees, and almost drowning them with sweetened scented water, I have succeeded in getting a few accepted immediately after removing the reigning queen; but this is not at all practical when working 50 to 100 nuclei.

QUEENS FLYING WHEN FIRST LEAVING THE CELL.

I also notice these words in one of our bee-papers: "The Syrians (queens) are more hardy and strong upon emerging from the cell than are those of the Italians. I have repeatedly seen them take wing when first escaping from the cell." So have I, not only Syrian queens, but Cyprian, Italian, black and Carniolan; but be it understood that no queen of any race ever so flew at maturity. Why queens are thus able to fly is because they are kept in the cells after maturity, and fed by the bees till several hours old, ranging from 8 to 24 or more hours; for a young queen can no more fly at maturity than can a worker. Any one running a lamp or other queen nursery cannot help admitting the truth of this, after seeing the white, weak things that all queens are if not kept from emerging from the cells by the bees at the queens' maturity.

When any man says that he has seen a queen fly from a cell kept in a nursery for 24 hours previous to her emerging, I will admit that I am wrong. Experiment more closely, brethren, and we shall have less to retract.

Borodino,⊙ N. Y.

Ohio Poultry Journal.

Some Things Not to Believe.

H. D. COX.

Some things we need not believe. If you see an advertisement agreeing for two red stamps to tell you all about bee-keeping, and how to make twenty-five dollars per colony out of your bees, don't believe it.

Another thing you should see before you believe, that bees gather and store great quantities of honey from red clover. I have had bees for many years, and always saw them on red clover when they could get nothing else to work on, and would seem to be very busy, but would gather very little honey. I once had the satisfaction of getting some pure red clover honey. In a dearth of honey from other flowers they were working strong on the bloom of the seed-crop of red clover; the fields were just humming with bees. I put a strong swarm on clean, empty combs, and succeeded in extracting a little from them. It was thin, of a dark red color, and had a clover taste, but I thought it was not good honey.

Another thing: Be slow to believe when somebody tells you it is all "luck" with bees. Luck has nothing to do with them. You manage the bees by knowledge and practice; Providence gives the weather; and the bees will gather the honey for you.

Pleasant Hill,+o Ohio.

For the American Bee Journal.

Results of the Season of 1887.

JOS. M. HAMBAUGH.

Owing to a severe sickness during the fall of 1886, at the time my bees should have been prepared for their winter quarters, and having no trusty person that I could employ, I was compelled to let my bees remain upon the summer stands without protection, and consequently I lost quite heavily at my home apiary; about 12 per cent. of them died before spring, while out of the 49 colonies at my Vandeventer apiary, 46 came through in good condition. The cause of the latter coming through so much better, is owing to the bees being upon larger frames and in larger hives; the hives being of the Quinby (*a la* Dadant) pattern.

I find that where bees are to be wintered on the summer stands, they invariably come through the winter stronger in numbers, build up quicker in the spring, and are in better condition to receive the harvest than the bees in smaller hives. This conclusion is based upon four years of actual test and experience, and I know whereby I speak.

After all losses of winter, spring dwindling, etc., my home apiary consisted of 73 colonies, and many of them weak and in poor condition to make a summer's harvest. Owing to my bees being badly intermixed with natives, I made no efforts to dispose of queens, but made special efforts to weed out as many of the old undesirable ones as possible, and with this end in view, I got 15 early queens from the South, and every few weeks I purchased queens from reliable breeders, and with what I reared and successfully introduced, I now have queen-bees and workers as good as the best in the country. In this work, I have had my share of tribulations, for along with the absence of nectar in the bloom, causing more or less demoralization, comes the extra care and pains to successfully supersede queens; and taking the season through, it has been the worst season I ever knew to keep all colonies queened; for in spite of all care and attention, it seemed that the bees put the blame of the poor season on their queens, and were bent on putting them out of the way.

I transferred 19 native colonies from box-hives into Dadant hives, and added them to my Vandeventer apiary, making 65 colonies of bees in all.

Clover commenced to bloom on May 6, and by May 20 the hills and valleys were white, but there seemed to be an entire absence of honey in the bloom; in fact many colonies were in a starving condition, and I know of several colonies in the neighborhood that left their hives in demoralization during the heighth of the clover bloom.

Basswood (or linden) yielded a scant harvest, but as my home apiary is not in a linden region, I got but little benefit from this source; but the bees at the Vandeventer apiary gathered enough to bridge them over the long drouth, which has been without a parallel in the history of this section of the country. Brood-rearing ceased to a great extent, and when the Spanish-needle bloom came, many colonies had dwindled, until they were in poor condition to receive the harvest. About Aug. 15 I purchased the apiarian outfit and bees belonging to W. J. Cullinan, of Mt. Sterling, Ills., consisting of 22 colonies, mostly hybrids. These I have added to my home apiary, making 95 colonies in all.

Spanish-needle commenced to bloom about Aug. 15, and never did I see honey come in faster than it did from this source; and had the strength of the colonies been as great as it was on June 1, would have obtained several thousand pounds of honey, whereas, after making all colonies even with ample stores for their long rest, I got 1,250 pounds of as fine Cereopsis honey as I ever saw. This amount seems very small, for so many colonies, but considering the season, I certainly have no reason to complain.

While this season has been the most disastrous ever known here, for the production of honey, it has not been without its benefits, if we understand how to utilize them. It has been a remarkably good year to develop the superior points in bees, weed out old, worthless and objectionable queens, clean up all the old stock of honey, study the ins and outs of the pursuit, read up, and more accurately lay plans for the future.

Spring,+o Ills., Nov. 10, 1887.

North American Bee-Keepers' Society.

The North American Bee-Keepers' Society held its 18th annual meeting, in conjunction with the Northwestern Bee-Keepers' Society, on Nov. 16, 17, and 18, 1887, at the Commercial Hotel, corner of Lake and Dearborn Streets, Chicago, Ills.

The meeting was called to order at 10 a.m., on Nov. 16, with the President, Dr. C. C. Miller, in the chair. It was voted that the reading of the minutes of the last meeting be dispensed with, and as the Treasurer was absent, no report was given. The followiug members then paid their dues:

E. S. Armstrong, Jerseyville, Ills.
M. M. Baldridge, St. Charles, Ills.
B. T. Baldwin, Marion, Ind.
John S. Barber, Turner Junction, Ills.
O. J. Bedell, Kawkawlin, Mich.
Miss Dema Bennett, Bedford, O.
N. N. Betsinger, Marcellus, N. Y.
T. F. Bingham, Abronia, Mich.
H. R. Boardman, East Townsend, O.
Joshua Bull, Seymour, Wis.
T. S. Bull, Valparaiso, Ind.
F. C. Burmaster, Irving, N. Y.
R. A. Burnett, Chicago, Ills.
H. Chapman, Versailles, N. Y.
O. S. Compton, Glenwood, Mich.
F. S. Comstock, North Manchester, Ind.
Prof. A. J. Cook, Agricultural Coll., Mich.
R. L. Crocker, Lockport, N. Y.
A. W. Cumins, Woodstock, Ills.
Rev. T. H. Dahl, Stoughton, Wis.
B. T. Davenport, Auroraville, Wis.
Mrs. B. T. Davenport, Auroraville, Wis.
Mark Davis, Lisle, Ills.
Frederick Dethloff, Ransom, Ills.
George Esher, Naperville, Ills.
James Forncrook, Watertown, Wis.
W. P. Fullmer, Chicago, Ills.
H. W. Funk, Bloomington, Ills.
A. M. Gander, Adrian, Mich.
H. C. Gilson, Burr Oak, Mich.
I. R. Good, Nappanee, Ind.
Wm. E. Gould, Fremont, Mich.
C. A. Graves, Birmingham, O.
J. A. Green, Dayton, Ills.
Mrs. L. Harrison, Peoria, Ills.
W. S. Hart, Hawk's Park, Fla.
A. S. Haskin, Lawrence, Mich.
Dr. Jas. B. Hawks, Arlington Heights, Ills.
James Heddon, Dowagiac, Mich.
Geo. E. Hilton, Fremont, Mich.
R. F Holtermann, Brantford, Ont.
C. F. Hopkins, Brownhelm, O.
Edwin Hubbard, Oil City, Wis.
W. Z. Hutchinson, Flint, Mich.
Geo. W. Jones, West Bend, Wis.
John Lemmer, Mauston, Wis.
D. B. Lovett, Crestline, O.
W. C. Lyman, Downer's Grove, Ills.
James M. Marvin, St. Charles, Ills.
Dr. A. B. Mason, Auburndale, O.
Nelson W. McLain, Hinsdale, Ills.
J. J. McWhorter, South Lyon, Mich.
B. J. Miller, Nappanee, Ind.
Dr. C. C. Miller, Marengo, Ills.
M. M. Miller, Chatsworth, Ills.
R. R. Murphy, Garden Plain, Ills.
John Neimetz, Ross, Ind.
Thomas G. Newman, Chicago, Ills.
E. J. Oatman, Dundee, Ills.
Chas. E. Parks, Watertown, Wis.
G. W. Redmon, Paris, Ills.
M. G. Reynolds, Williamsburg, Ind.
J. H. Robertson, Pewamo, Mich.
A. I. Root, Medina, O.
Mrs. Frank Searles, Marley, Ills.
Eugene Secor, Forest City, Iowa.
N. Staininger, Denison, Iowa.
G. W. Stanton, Sheridan, Mich.
N. L. Stow, South Evanston, Ills.
E. Strong, Kalamazoo, Mich.
C. L Sweet, Glenwood, Ills.
R. L. Taylor, Lapeer, Mich.
Geo. Thompson, Geneva, Ills.
John A. Thornton, Lima, Ills.
J. Erwin Wakeman, Luckport, N. Y.
Byron Walker, Capac, Mich.
D. G. Webster, Blaine, Ills.
G. W. Webster, Lake Helen, Fla.
Franklin Wilcox, Mauston, Wis.
Wm. Wilson, Burr Oak, Mich.
L C. Woodman, Grand Rapids, Mich.

After the enrollment of members, Mr. J. A. Green, of Dayton, Ills., read the following essay, entitled,

The Production of Comb and Extracted Honey in the Same Apiary.

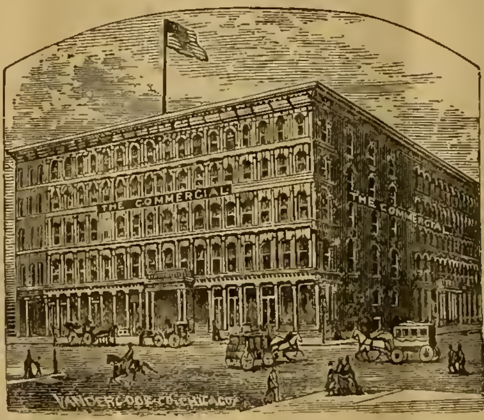
One of the growing tendencies of the times is toward division and specialization in all departments of labor. That this principle is, in the main, correct, there can be little question. As the field of knowledge is widened, or as competition is increased, and the struggle for success becomes keener, no man can afford to divide his energies and so weaken his powers.

It has been truly said that there is such a thing as momentum in mind as well as in physics, and that many a man has just missed becoming a great man by splitting into two middling ones.

Comb honey, we all know, is sold largely by its appearance. A poor article that looks well will sell better than a good article that looks badly. If there is any portion of your honey crop that does not look well in sections, secure that portion in the extracted form. With a good market for dark extracted honey, it will probably pay to sell all light honey in the comb, and all dark honey as extracted.

You may have some colonies that do not produce nice comb honey. Pinch off the heads of their queens as soon as convenient, but in the meantime take their honey with the extractor.

Let it be your aim to have every pound of comb honey first-class. Poor extracted honey can be sold for manufacturing purposes, but poor comb honey is hard to sell anywhere, and injures the market for good comb honey.



COMMERCIAL HOTEL, CHICAGO.

In bee-keeping, as in other occupations, the greatest average success will be gained by making a specialty of it, even though an occasional season, such as that just past, may bear hard on some. Yet this principle may be carried too far. We already have bee-keeping as a specialty, divided into the sub-specialties of honey-production and the rearing of queens and bees for sale, while some insist that honey-production should be divided, and a specialty made of either comb or extracted honey.

Circumstances alter cases. Undoubtedly there are places where comb honey cannot be profitably produced, and there are probably other places where it will not pay to propuce much extracted honey. In most cases, though, a judicious combination of the two will give the best results.

In the first place, study your market. There will be found almost everywhere some who will consume large quantities of extracted honey at its lower price, when they would hardly touch the more expensive comb honey. Supply this demand. There are others who will use only a definite amount of honey, whether comb or extracted. It is folly to sell extracted honey to these. This applies almost as well to the wholesale as to the retail market.

It sometimes happens that honey comes in faster than the bees can build comb to store it in. At this time a few cases of empty combs distributed among the best colonies will pay an enormous profit.

The productiou of extracted honey may be combined with the production of comb honey so as to get rid of much annoyance, expense and loss that is unseparably connected with the sole production of comb honey, and at the same time improve the quality of all the honey produced.

To accomplish this result, a large number of extracting combs is needed —at least one set for each colony. When the honey-flow begins, give each colony a set of combs. We all know that bees will begin work sooner on empty combs than in empty sections, and most of us appreciate the importance of having the very first of the honey-flow go into the surplus apartment. If you are one of those who never have any trouble to induce the bees to start work in the sections just as soon as there is honey to gather, this part of the programme may be omitted, and with a short and sudden honey-flow it might not be advisable.

After the bees are well at work above, remove the extracting combs from as many colonies as you want to work for comb honey, and give them sections. Pile up the supers of partly-filled combs over other colonies. The honey so piled up will become thoroughly ripened, and be a much finer article than that usually produced. Whether for economy or excellence of quality, there is no way of producing extracted honey equal to that of giving the bees plenty of room in which to store honey, and then plenty of time to ripen it.

Along toward the close of the honey-flow, instead of putting on more sections which are not likely to be finished, take all the sections from a part of the colonies, giving them empty combs instead. Use the partly-finished sections instead of new ones on other colonies.

Let us now recount the advantages of this system: First, getting the bees started in the surplus department without delay. Second, your comb honey is nearly all No. 1, and the extracted honey is the finest that can be produced. Last, but by no means least, you are rid of nearly all the bother and expense of unfinished sections in the fall. Having few unfinished sections in the fall, you have few old sections in the spring, and it is for this reason that your comb honey will be finer. Honey stored in comb built the year before is never equal in quality or appearance to honey in newly-built combs.

To carry out this system, of course, all parts of the hives must be easily and quickly removable, and interchangeable, and capable of being handled by cases instead of by frames or sections.

Section cases should be only one-tier deep, and extracting supers should be shallow—not over 6 inches deep—and both should be capable of being tiered to any desired height. Queen-excluding honey-boards are a great convenience, and, in fact, almost indispensable. J. A. GREEN.

After the reading of the above essay, the subject was discussed as follows:

Franklin Wilcox—How much more extracted than comb honey can you secure?

J. A. Green—If first-class honey is produced, about twice as much; such extracted honey as is usually produced, I would say three times as much.

H. R. Boardman—I prefer wide frames to cases.

President Miller—One or two tiers high?

H. R. Boardman—Either.

J. A. Green—I prefer wide frames only one tier high.

N. N. Betsinger—The case system will hold its own, and wide frames must go.

President Miller—Mr. Green, do you secure a poorer class of honey by using drawn combs in the sections?

J. A. Green—I think I do.

C. F. Hopkins—If the honey stored in old combs is of an inferior character, why is not extracted honey stored in old combs of a poorer quality?

J. A. Green—If the sections were left upon the hives as long as are combs of extracted honey, it probably would be, but the sections are removed as soon as finished, and the honey is more inclined to sweat when stored in old combs.

H. W. Funk—The reason probably is, that honey stored in deep cells is not so quickly and thoroughly ripened.

Franklin Wilcox—At the begining of the season the honey is often removed from the brood-nest to make room for brood, and is stored in the sections. This honey is often of poorer quality, and if any of the sections are filled with comb, it would be stored in them.

N. N. Betsinger—The reason why honey stored in old combs is more inclined to granulation, is because any comb or vessel that has once contained granulated honey will cause the granulation of any honey placed therein.

H. R. Boardman—I have produced tons of honey, and have used old combs; not old, black, soiled or discolored combs, but new, white combs, built the preceding season, all neat and clean.

N. N. Betsinger—The trouble is, that bee-keepers do not properly clean out the combs the previous autumn.

H. W. Funk—If comb honey is properly kept, will it ever granulate?

N. N. Betsinger—No, never.

Joshua Bull—I have some honey that was stored last year, in old combs, and it has not yet granulated: while some that was stored this year in newly-built combs is candied solid. All this is caused by the character of the honey.

The convention then adjourned till 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m., with President Miller in the chair.

Legislation for Bee-Keepers.

The discussion upon this topic was opened by the President as follows:

I have not corresponded with the other members of the committee appointed upon this subject at the last meeting, but I suppose the report would be an adverse one. I feel that this topic has been entirely misunderstood. I put it upon this basis: A man cannot farm without land, neither can he keep bees without pasture. I may be wrong, but, from the bottom of my heart, I believe that legislation is desirable, although it may not be feasible.

A. B. Mason—I agree with the President in his views.

Franklin Wilcox—I see no way in which legislation is feasible, unless it would be to exempt bees from taxation, then grant licenses to bee-keepers, each license giving the right to a certain territory.

H. R. Boardman—Before this discussion had been going on very long, I came to the conclusion that the small bee-keepers need protection more than do the large ones.

Joshua Bull—Suppose the Government grants licenses, and some millionaire buys the license to a whole State, he is then able to dictate terms to all the bee-keepers in that State.

President Miller—How about farming? Cannot a man buy as much land as he has money with which to buy, and is then able to dictate terms?

Joshua Bull—I suppose bee-keepers must be subject to the same laws as other business men. If a man starts a store, might he not ask for protection from other store-keepers starting in near him?

President Miller — Bee-keeping is not like traffic, so much as it is like farming, stock-growing, etc. If a man buys 40 acres of land, and starts in raising grain, ought he not to be secure in his possessions?

Prof. Cook—Now if we had a large number of specialists all over the country, and that was the manner in which honey was produced, rather than by a large number of small bee-keepers, or amateurs, such legislation might be advisable; but it seems to me that specialists are few and scattering. Now I have a farm in Michigan, and if I should go there and start an apiary, and President Miller should wish to come and settle down by my side and start an apiary, I should feel a little better satisfied if he would go a little further up the street; and I should reason with him, and tell him his coming so near meant disaster to both of us, and I believe he would go.

President Miller—But suppose I wouldn't go?

Prof. Cook—Oh! but you would go, Brother Miller.

President Miller—You admit then that I ought not to go there?

Prof. Cook—Yes.

President Miller—You would use moral suasion. But suppose it had no power over me. If I am wrong, then *law* should step in and compel right. The question is this: Is it better that the honey be secured by specialists, or by small bee-keepers? If the former, then legislation is needed.

Prof. Cook—When land is sold, the right to the nectar is not sold with it; and it is well that bee-keepers and the public should know this.

It was voted that, in the present stage of bee-culture, legislation is neither desirable nor feasible.

President Miller then resumed the chair, and called for the next topic, which was to be presented by Mr. Thomas G. Newman, who had just come into the Hall. As he had been indisposed for several weeks, his physician would not allow him to attend more than a part of one session each day. The topic was,

Objects and Methods of a Thorough Organization of the Bee-Keepers of North America.

A philosopher once said, "My object is not to make people read, but to make them think." *My* desire is to cause them to *act*—for *action gives results!* I would endeavor to inspire you to undertake a "progressive step" in the direction of organization! I intend to merely *outline* the benefits to accrue from united effort, and to state very briefly the probable effects of the plan proposed. Said one of old, "I believe, and therefore have I spoken." I, too, have believed in the exalted possibilities of the North American Bee-Keepers' Society, and have for nearly a dozen years labored zealously for the realization of the fond hopes so long entertained.

The pursuit of modern and progressive apiculture is yet in its infancy. It has grown rapidly, and its development has been accompanied by science, art, and invention at every step; so that to-day (even in its infancy) it is really a *giant!* standing almost without a parallel in the history of industrial pursuits—its devotees in North America to-day numbering 300,000 persons; and its annual product of honey amounting to 100,000,000 of pounds, and its value being about fifteen millions of dollars.

Is it not true that our National government is founded upon the principle that "in Union there is strength?" And after passing the ordeal of the greatest "civil war" of modern times, is to-day the strongest and best in the world? Its constitution and laws are "the bulwark" of all our privileges and liberties! It guarantees to us also the full benefit and peaceable enjoyment of our organized labors!

What we need is organized efforts, unity of labor, and concert of action, upon all matters where "our interests are in common!" To accomplish this, we ought to patriotically sink all our minor differences, and organize to defend our pursuit, watch our interests, and defend our rights. A thorough organization is our only "stong tower of defense," and will command lawful attention and commercial respect.

But some may ask, "What do we desire to accomplish?" To answer this, let us enumerate some of the suggestions during the intervening year, since last we met:

Has not a "Honey-producers' association" been proposed, to control the selling prices of the honey product? A strong but conservative society would best serve that purpose.

Have we not heard about the necessity for obtaining reliable apicultural statistics? What could be better adapted to this purpose than an Inter-National Society?

Has not a proposition been made to ask for legislation in favor of granting protection to bee-keepers within a certain territory? What could authoritatively decide whether such legislation is desirable or not, but such an apicultural organization?

Some of our principal wants are, a systematic encouragement of Bee and Honey Shows at Fairs; providing bee-tents for such bee-exhibitions; inaugurating a system of *education* of bee-keepers, and by certificate or otherwise, guaranteeing to those who wish to hire assistants, that they possess a practical knowledge of the business for which they are wanted.

These "wants" could all be provided for, and satisfied in a better manner, by a well-organized society, than in any other way.

Then again, it has often been advised that the Constitution of this Society should be amended so as to make it a Representative Society. In the minutes of a former meeting we find the following:

> The committee on revision of the Constitution, find that the North American Bee-Keepers' Society should be composed of delegates from all the local societies throughout North America. They would, therefore, recommend and urge that the local societies carry out this feature, and send delegates to the next meeting of this Society.

At another very important meeting of this Society, the chairman of "the committee on the best means of promoting and advancing the interests of the National Society, and to increase its usefulness," reported, making the following recommendations:

> 1. That the Society be made a representative body, and that delegates from local societies be sent to the National Society with instructions as to the needs of apiculture at large.
> 2. That it should encourage a local State exhibition once a year, having public manipulations with bees.
> 3. That the National Society award suitable medals for the best exhibit of honey in the most marketable shape, and a diploma for the most expert public handling of bees.

The Convention also recommended that a Vice-President be elected in every State and Territory, to co-operate with the Society in awarding prizes at these Bee and Honey Shows. It also recommended that a representative of this Society attend these Bee and Honey Shows, and that his traveling expenses be borne by this Society, and that a committee be appointed to procure medals and diplomas.

To make this a Representative body is not a difficult task. The Constitution can be revised and amended, and when this meeting adjourns, it can direct that at the next annual meeting, representatives from auxiliary societies, and members of the parent society only will be allowed to vote, hold office, etc. Of course all apiarists will be admitted, as heretofore, and be entitled to take part in the deliberations by purchasing an annual ticket of the Secretary, the proceeds to be used in defraying the necessary expenses of holding the annual convention.

It is a self-evident proposition that apiarists, like every other professional or industrial class, have the right to organize for their own interests and advantage, and to select such forms of organization as may best suit their purposes. And it is likewise *the duty* of every apiarist in North America to sustain that organization by every means in their power, and to "stand shoulder to shoulder" in creating and upholding it, as well as in making it one of permanent interests. That organization must enlist the highest intelligence, as well as possess the strictest integrity in order to make it of permanent value to the industry.

It is generally known that the "Bee-Keepers' Union" has been formed, and for three years has made its power felt in defending the rights of its members. It is now a power in the land, and asks no assistance from any other organization; but is it not worthy of consideration, however, to ascertain if it would not be advisable to have it as an "auxiliary" under the protection and patronage of this Society? If desired it *might* be induced to become an integral part of an organized body.

In London, England, they have a "Honey Company" which receives and sells at the highest market prices the honey belonging to its members, either by sample or in bulk, and if such a company may also be deemed desirable in America, and some arrangements may be made, perhaps, whereby the company could make advances on consignments, and thus help producers in more ways than one. This might also be made a feature of the proposed organization, if deemed desirable by the members of this convention of American apiarists.

To accomplish the latter it would be necessary to incorporate the society and sell sufficient capital stock to give ready funds to make advances and control the honey product. This suggestion I leave for the consideration of the Convention, or a committee of its creation. But to facilitate matters, I will here submit for your approval or rejection the draft of a new Constitution and By-Laws to include all of the suggestions made; your committee can easily exclude, revise or make new provisions to suit their own views.

CONSTITUTION.

ARTICLE I.—NAME.

This organization shall be known as "The Inter-National American Bee-Association," and shall include in its territory all of the United States and Canada.

ARTICLE II.—OBJECT.

Its object shall be to promote the general interests of the pursuit of bee-culture throughout the North American continent; to form a fraternal bond of Union for the instruction and protection of its members; to diffuse a general knowledge of the value and uses of honey both for food and medicine; to create a market for this God-given sweet, and to assist in its distribution evenly over the American continent—thereby enhancing its commercial value.

ARTICLE III.—MEMBERSHIP.

1. This Association shall consist of its officers, life members, annual members, honorary members, delegates from affiliated local associations, and ex-presidents.
2. Any person interested in apiculture may become a life member, upon the payment to the Secretary of the sum of ten dollars, and receiving a majority vote at any annual meeting of this Association.
3. Any person interested in apiculture may become an annual member upon the payment to the Secretary of one dollar, and receiving a majority vote, at any annual meeting. Ladies interested in apiculture may be admitted free upon a majority vote.
4. Annual members shall be entitled to vote, hold office, and discuss any question before the Association, subject to the By-Laws of the Association.
5. Any persons interested in bee-culture may become honorary members by a majority vote at any regular meeting.
6. Delegates from affiliated local Associations shall be admitted free, and have all the rights of annual members.

ARTICLE IV.—OFFICERS.

1. The officers of this Association shall consist of a President, First Vice-Presi-

dent, Secretary and Treasurer, and their term of office shall be one year, or until their successors shall be elected and installed.

2. The Presidents of all the local associations, in affiliation with the Inter-National Association, shall be "ex-officio" Vice-Presidents of this Association.

ARTICLE V.—AFFILIATION.

Any State, District, Territory or Province in North America may become affiliated to the "Inter-National American Bee-Association" upon the annual payment of five dollars, which shall be due on the first day of January in each year.

ARTICLE VI.—MEETINGS.

The regular meetings of this Association shall be held at such time and place as shall be agreed upon at the previous annual meeting. Ten members shall constitute a quorum for the transaction of business, but a less number may engage in discussion, and adjourn until some future day.

ARTICLE VII.—SPECIAL MEETINGS.

Special meetings may be called by the President and Secretary, who shall constitute an executive committee.

ARTICLE VIII.—VACANCIES IN OFFICE.

Vacancies in office by death, resignation, or otherwise, shall be filled by the President until the next annual meeting.

ARTICLE XI.—AMENDMENTS.

This Constitution may be amended at any annual meeting, by a two-thirds vote of all the members in attendance.

BY-LAWS.

ARTICLE I.—The officers of this Association shall be elected by a majority ballot; or, if so decided, by a vote of two-thirds of those present, the officers may be elected by a show of hands.

ART. II.—It shall be the duty of the President to call and preserve order in all meetings of the Association; to call for all reports of officers and standing committees; to put to vote all motions regularly seconded; to decide upon all questions of order, according to the Constitution and By-Lays of the Association, and in accordance with parliamentary usage; to provide for counting the votes at all elections; and at the expiration of his term of office, to deliver an address before the Association.

ART. III.—It shall be the duty of the First Vice-President (or in his absence one of the other Vice-Presidents), in the absence of the President, to perform the duties of that office.

ART. IV.—It shall be the duty of the Secretary to call the names of the members of the Association at the opening of each annual meeting, and to receive the annual dues; to report all proceedings of the Association, and record the same, when approved, in the Secretary's book; to conduct all correspondence of the Association, and to file and preserve all papers belonging to the same; to take and record the name and address of every person who becomes a member of the Association, and transfer the moneys received for dues to the Treasurer, after taking a receipt for the same; to make out and publish annually, as far as practicable, a statistical table showing the number of colonies owned in the spring and fall, the amount of honey and wax produced (together with such other information as may be deemed beneficial) by each member of the Association; and to give notice of all regular meetings of the Association in the bee-papers, at least four weeks before the time of such meeting.

ART. V.—It shall be the duty of the Treasurer to receive from the Secretary the funds of the Association, and give a receipt for the same; to pay them out upon the order of the executive committee, and to render a written report of all receipts and expenditures of the Association at each annual meeting.

ART. VI.—The Secretary shall have power to choose an Assistant-Secretary, if deemed necessary.

ART. VII.—The Association shall be mainly governed by the following order of business:

Call to Order.
Reading the Minutes of the last Annual Meeting.
Calling the Roll of Officers and Members.
Reception of New Members.
Collection of Annual Dues.
Secretary's Report.
Treasurer's Report.
Reports of Standing Committees.
Reports from Affiliated Local Associations.
President's Address.
Election of Officers.
Selection of Place and Time of Next Meeting.
Miscellaneous Business.
Discussion of Topics.
Installation of Officers.
Adjournment.

ART. VIII.—A committee of five shall be elected, who shall have power to organize itself into a "Honey Company," and its duties shall be to inaugurate plans for the marketing and sale of the products of the apiary. Every member of the Inter-National American Bee-Association, and its affiliated branches, shall be entitled to the benefits of the Honey Company, subject to the terms of its By-Laws.

2. This Honey Company shall make annual reports of the state of the market, amount of business done, and of its financial condition to the annual convention of the Inter-National American Bee-Association.

ART. IX.—1. The Secretary of each local affiliated society shall, through its Secretary or President, on the first day of August in each year, report to the Secretary of the Inter-National American Bee-Association, the number of its members, stating the aggregate number of colonies of bees in their apiaries in the previous fall, the number in the spring, the increase since, and the approximate number of pounds of honey produced (stating comb and extracted separately), and any other desirable information concerning the probable honey-production of those not members of the Society, but within the territory of the affiliated local association.

2. If the annual affiliation fee be not promptly paid, and the local report withheld, the "Inter-National American Bee-Association" may at any time within one month of the dates mentioned withdraw the privileges of affiliation, which comprize the following:

(1.) The President of each affiliated society is "ex-officio" a Vice-President of the Inter-National American Bee-Association.

(2.) It shall be entitled to receive from the Inter-National Society, two silver medals to be offered as prizes for honey, open for competition to all its members, one for the best in the comb, and the other for the best out of the comb.

(3.) The members of all the affiliated societies shall be entitled to the facilities which may be provided from time to time by the Honey Company, for the sale of honey and beeswax, upon the terms stated in the By-Laws of the Company.

(4.) Each affiliated society shall be entitled to the services of a Judge to award premiums at its Bee and Honey Show, upon the payment of his actual railroad and hotel expenses.

(5.) Each affiliated society shall be entitled to elect one delegate to each 25 of its members, or fraction thereof, who may represent it at the annual meeting of the Inter-National American Bee-Association. All expenses of such delegates to be borne by themselves or the local society, or both conjointly, as they may provide. Such delegates shall be entitled to vote, hold office, and take part in all the deliberations of the Inter-National Association.

ART. X.—A Defense Committee of seven shall be appointed for the purpose of considering the applications of members for Defense from unjust lawsuits by those who are prejudiced against the pursuit. This committee shall be the officers annually elected by the National Bee-Keepers' Union, which is hereby declared to be affiliated to the Inter-National American Bee-Association. Its President is hereby made a Vice-President of this Association, and its Manager also a delegate to the Inter-National Convention.

ART. XI.—An Expert Committee of three shall be annually elected and fully empowered to prepare examination blanks, and make all necessary arrangements for the examination of candidates for Diplomas as Experts in the art of bee-keeping. This committee shall be empowered in the name of this Association, to award Diplomas of three grades upon candidates, according to their proficiency in the art of bee-keeping and the management of an apiary.

ART. XII.—1. The Executive Committee of this Association shall cause the Constitution and By-Laws to be printed in appropriate form, and every person joining the Association shall be entitled to a copy of the same.

2. It shall also select subjects for discussion, and appoint members to deliver addresses or read essays, and the same shall be published with the call for the next annual meeting.

3. It shall also provide free Badges for all members, and procure medals for the honey shows of affiliated associations, and Diplomas for experts.

4. The Executive Committee shall also provide a place of meeting for the annual convention, and see that all necessary arrangements are made to carry out the demands of the Constitution and By-Laws.

ART. XIII.—No member shall be entitled to the floor more than five minutes in the discussion of any motion, resolution or petition, without obtaining the consent of the Association, nor a second time, unless by the consent of the President, or a majority of the members present.

ART. XIV.—All committees shall be elected by ballot, by a plurality vote, except by special resolution.

ART. XV.—These By-Laws may be amended by a two-thirds vote of all the members present at any regular meeting of the Association.

Let us all remember that in the strength of its *deposits* "the Bank of Human Friendship" is invincible! and the *assets* are greatly augmented when "good men and true" invest largely in its capital stock! Were mankind to cease to aid each other, the race would soon perish. From the moment of our advent into this world until some kind hand wipes the death-damp from our brow, we need assistance and friendly help—and none can be guiltless who refuse it.

"Do you *ask* for the name
Of this Genius whose fame
Through the civilized world doth abound?
It is *Friendship* pure,
Whose works will endure
Until the last trumpet shall sound."

I trust that I have made plain the *outline* of the organization suggested

—the *advantages* offered—the *duties* devolving upon its members, and the *responsibilities* resting on its executive officers; and now, in conclusion, let me ask, may we not hopefully look to the future, expecting to see Apiculture prosper, and its votaries intelligent, successful and happy, enjoying the full fruition of the grand organization which may result—from the labors of this day? In the language of Webster, when laying the cornerstone of the Bunker Hill Monument, I will say of this proposed organization: "Let it rise! Let it rise, till it meet the Sun in its coming; Let the earliest light of Morning gild it, and the parting day linger and play on its summit!"

After the reading of the above essay, on motion of Dr. A. B. Mason, it was decided that a committee of three be appointed by the chair, to take into consideration the proposed amendments to the constitution, and report upon the advisability of its adoption.

The following were then appointed as such committee: Prof. A. J. Cook, Agricultural College, Mich.; W. Z. Hutchinson, Flint, Mich.; and A. I. Root, Medina, O.

The convention then listened to an interesting talk by Mr. A. I. Root, of Medina, O., about

Foul Brood, How Shall We Treat It?

Mr. Root said—As soon as foul brood appeared in our apiary, we began burning up the affected colonies. After we had burned about 40 colonies, we found that, in nearly every case, colonies adjoining the stand of a destroyed colony, soon showed signs of disease, and we began to cast about for some way of curing the disease. The first thing used was phenol, diluting it and applying it with a spraying attachment; first tearing off the cappings with a wire hair-brush, which does the work in such a manner that the healthy brood is uninjured. The odor drives the bees out of the hive, but they soon come back, and usually clean the foul brood out of the cells. This treatment does not always cure the disease, but there is this advantage, it prevents the spread of contagion to other colonies. I did advocate the burning of hives, but Mr. Cowan says that immersing them 40 seconds in boiling water destroys all germs. With chaff hives, the chaff must be removed, the hives boiled, and then refilled with new chaff.

Miss Dema Bennett—Is there any danger of communicating the disease by the way of foundation?

Mr. Root—The heat necessary to the manufacture of foundation would destroy the germs. With a small apiary, I believe I would burn up the "whole business" if I found it infested with foul brood.

J. A. Green—There is a disease something like foul brood, but not contagious; the difference is that the larvæ are brown and watery instead of ropy, as in genuine foul brood.

Dr. A. B. Mason—If a larva is elastic and ropy, it is a certain indication of foul brood.

N. N. Betsinger—There are certain conditions that will bring about foul brood. I can produce foul brood in ten days, and cure it again in the same length of time. Salt is the simple remedy that will cure it. Mix it with sawdust, put it into a keg, add water, and keep it in the apiary where the bees can have access to it.

A. I. Root—We have fed our bees salt and water for a long time; we also have sawdust in front of the entrances, and add salt to keep down grass.

Dr. A. B. Mason—I know of many who have tried salt and failed.

Prof. Cook—There are two or three points that need emphasis, viz: We cannot depend upon the odor in detecting foul brood, while the elasticity or ropy mass is a sure test; many men have cured foul brood, hence we can cure it, and need not burn things.

B. T. Davenport—I, too, have had trouble from the kind of "dry" foul brood, as mentioned by Mr. Green. I fail to see why it should be called "dry" foul brood, as it is watery, although the larvæ does finally dry up. The larvæ will break in two when there is an attempt at removal, but there is no ropiness nor elasticity. The trouble is greater with dark bees than with Italians. I have cured it by a change of queens.

The convention then adjourned until 7:30 p.m.

EVENING SESSION.

The convention was called to order at 7:30 p.m., by President Miller, when the Secretary read an essay from C. P. Dadant, of Hamilton, Ills., entitled,

Comb Foundation, Its Manufacture and Use.

The first requisite for a good article of comb foundation is, to get a pure article of beeswax. The making of foundation of wax mixed with paraffine, or with ceresine, has been tried several times, and has resulted in a loss to the manufacturer, as the bees detect the imposition more readily than men can. Besides, these artificial compounds melt at a lower degree than pure beeswax, and endanger the safety of the colony, when put in use. In this country, where the extremes of heat and cold are so marked, even pure beeswax, in naturally built combs, sometimes gives way under the heat and weight combined. It is by their lighter specific gravity that paraffine and ceresine are most readily detected. Happily, however, these adulterations are very scarce. The most frequent adulteration of beeswax, that with tallow, is easily noticed by the dull and greasy appearance of the cakes. This wax should be carefully rejected.

After selecting the beeswax, we melt it in a large boiler, and keep it liquid for 24 hours or more, to give all the impurities time to settle to the bottom. These are afterwards melted over, to separate what may remain in them.

The wax is then dipped into sheets, by the use of thin pine boards, which have been kept dampened in water, to prevent sticking. We formerly used glass, and finally rejected it as too expensive. The sheets are made thick enough to stretch in the rolls when moulded. In this way all the inequalities of their surface are laminated out, and the foundation turned out of the rolls is dry, or nearly so, all the moisture being forced out with the pressure. It is in this particular that resides one of the many advantages of the roller mill over the press. In the press, the lubricating material, whatever it is, is left on the sheets, and is very objectionable to the bees.

There are many points in the manufacture of comb foundation that are worthy of attention, but it is impossible to notice them all in this short essay. In this branch of industry, as in all others, practice is required to acquire skill, and speed in manipulations.

Of the use of comb foundation, it is not necessary to speak, for there is certainly not a bee-keeper at this meeting who does not know of its advantages.

Two of our bee-papers have lately published an article from my pen, which first appeared in the *Western Agriculturist*, several years ago, when comb-foundation machines were yet in their infancy. In this article I advised the use of narrow strips in the brood-frames, for we did not then know how to make foundation that would hold, in full sheets in the hive, when used for natural swarms. But everybody now uses comb foundation in full sheets in hiving swarms, and we have done so ourselves for years, with entire success.

Let me close with the remark, that of all nations the American is the most progressive, as far as practical or material advancement is concerned. America leads the world in practical bee-culture, and although many are the scientific discoveries that we owe to our brothers across the Atlantic, they readily acknowledge that in the practical production of honey, they only follow in the footsteps of the apiarists of the New World.

C. P. DADANT.

H. R. Boardman—Mr. Dadant is mistaken when he says that everybody now uses full sheets of foundation when hiving swarms.

President Miller—Perhaps he means that foundation is now so made that it can be used in this manner if desirable.

James Heddon—I have used lye as a lubricator, but I have had no trouble from its use. I have made a solution four times as strong as needed, put in pieces of wax, but failed to see that it injured the wax. After foundation has been made awhile, there is a precipitation, but it is not objectionable. The Given foundation cannot be made so even as that made on rollers; it is no more even then it is dipped; but this unevenness is all in side-walls, *i. e.*, some are deeper than others, but the base is even, and I fail to see anything objectionable in this.

Dr. A. B. Mason—I use and prefer the Given press. I once used lye as a lubricator, but I now use the washing fluid that I wrote about in *Gleanings*.

J. A. Green—I used 1,500 sections one year; one-third were filled with new foundation, one-third with old foundation, and the remainder with partly drawn comb. Those with the new foundation were finished first, and those with old foundation were completed last.

A. I. Root—Has any one compared "starters" with full sections of foundation?

R. R. Murphy—I have, and the ones with starters only were last finished.

F. Wilcox—I use foundation in sections, and I cannot understand how Mr. Doolittle can secure and use natural comb, as he advocates.

H. R. Boardman—I wish those gentlemen who have trouble in getting nice honey when using old combs, would tell us how they get their old combs.

J. A. Green—I take nice new combs, and the white fins that the bees build.

R. R. Murphy—I put on an upper story in the fall, and allow the bees to build comb in the frames, then extract the honey, and use the comb the next year.

Joshua Bull—I have used combs of the previous year's building, and the bees commenced work in the sections first, and no one could see any difference in their appearance, when finished, from new combs built from foundation.

Miss Bennett—I have tried filling sections alternately with foundation and with comb, and both were worked out, filled and finished the same, and there was no difference in appearance.

James Heddon—I prefer foundation to drawn combs; it is finished quicker and looks better.

President Miller—I have had bees fill and finish sections of comb before they even began work upon sections of foundation; but perhaps I ought to explain that they did not begin work at all that season upon foundation.

H. R. Boardman—Much of this confliction is the result of different management. I would like to say, however, that Mr. S. F. Newman, of Norwalk, O., told me that, had it not been for his stock of empty combs, he would not have had a pound of honey; while, as it is, he has two or three thousand pounds of comb honey.

T. F. Bingham—If I could get plenty of nice, white combs I should use them in the sections.

A. I. Root—In using combs, the cells are deep, and the honey does not ripen so quickly as when the cells are filled as they are drawn.

H. R. Boardman—I am not in favor of using combs that are so old that they are black or discolored, and the sections soiled. But here is a point: Some of us have been hiving swarms upon empty frames; this hiving is sometimes done when honey is coming in at the rate of 10 or 15 pounds per day; now, if the sections are not filled with combs, where is this honey to be stored? Unless there is a place to store it, there is a loss.

W. Z. Hutchinson—The honey-flow is often slow at first, and the bees are reluctant to begin in the supers. As a consequence, the brood-nest is crowded with honey. Were combs used in the sections, the bees would begin storing honey in the sections sooner. This would relieve the pressure upon the brood-nest, and large quantities of brood is the result. With me, the bees not only commence work in the supers when combs are used, but they finish the honey sooner, and it has an equally fine appearance. I fail to comprehend why some of these other gentlemen cannot succeed with empty combs.

James Heddon—There may be a difference in the combs built in different localities.

The convention then adjourned until Thursday at 9 a.m.

(*Continued next week.*)

For the American Bee Journal.

The Honey Season of 1887.

F. A. SNELL.

As the honey season is now over, I will give my report. The season opened very unfavorably, and so continued to the close. I have kept bees for 29 years, and had thought that I had seen about all kinds of seasons, but I have seen something new this year. Unwelcome as it has been—a total failure of surplus honey—I have never seen anything near like it. The least average of surplus that I have had previous to this year, was 25 pounds per colony.

Not a single swarm has issued from the 130 colonies that I had at the opening of the honey season. During soft maple, willow and fruit-bloom, the weather was cold and very windy most of the time. White clover opened with very little bloom, as the plants were few, owing to the drouth of 1886. The weather being very dry this season, clover bloom amounted to almost nothing.

Basswood opened about two weeks earlier than usual, from which the bees gathered a very little for three or four days. Sweet clover (*Melilotus alba*) was almost parched—in fact all plant bloom was affected in the same way during June and July. Later we had light showers which seemed to evaporate from the thirsty earth like a morning dew.

The bees gathered some honey from second bloom of red clover and buckwheat; and later, a little honey was gathered from heart's-ease, blue-vervain and other wild flowers. A little patch of giant white mignonette, which I had, was covered with bees "from early morn till dewy eve," as has been the case while it was in bloom for the past five or six years. This plant comes into bloom about July 10, and continues until we have had frosts.

My colonies were strong in numbers during the season, and stored enough for winter, with the exception of a very few colonies, which were fed with granulated sugar syrup, for which I used 100 pounds of sugar. In this part of the State many bees will starve long ere spring arrives. Black bees starved out here in July and August.

This season has again demonstrated the superiority of the Italian bees over the blacks. I now have 120 colonies in fair condition to put into winter quarters. Comparing this year's product with last year's, it is as follows: Surplus honey in 1886, 13,000 pounds; in 1887, none!

I am not by any means discouraged, but I think that the practical apiarist will yet receive his reward. "It is an ill wind that blows nobody any good."

Milledgeville, Ills., Nov. 8, 1887.

Local Convention Directory.

1887. *Time and place of Meeting.*

Nov. 25, 26.—Pike Co. & Ills. Cent., at Pittsfield, Ill.
W. T. F. Petty, Pres., Pittsfield, Ills.

Nov. 26.—Hardin County, at Eldora, Iowa.
J. W. Buchanan, Sec., Eldora, Iowa.

Dec. 7-9.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

Dec. 15.—Southeastern Michigan, at Adrian, Mich.
A. M. Gander, Sec., Adrian, Mich.

1888.

Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bees did Well.—A. V. Kouba, of Crete, Nebr., on Nov. 12, 1887, writes:

I began the season with 8 colonies of bees, and increased them to 26 colonies by dividing them before June 1. I also took 1,050 pounds of extracted honey. My bees did well for the poor season, I think, and besides, they have the hives full of honey to winter on. The bees have been working on the red clover this fall. I have fed them to induce late brood-rearing, and the result is that the hives are full of young bees for winter. I use good chaff hives.

Good Weather for Bees, etc.—W. A. Shafnit, Brighton, Iowa, on Nov. 14, 1887, writes:

I commenced the spring of 1887 with 13 colonies, increased them to 30 colonies during the swarming season, and now have 24 colonies in good condition for winter. The season has been very dry. White clover was cut short by drouth. Basswood bloomed two weeks earlier than usual. I have fed my bees to keep up brood-rearing.

There was but very little fall honey, and the prospects are that those who did not look after their bees wil not have many to look after next spring. I am well pleased with the 8-frame hive for this locality. I will study Mr. Heddon's book, and also Mr. Hutchinson's the coming winter, and give their plans a fair trial next summer, and report to the BEE JOURNAL next fall. Bees are still having a good flight every day.

Taken In by Wiley's Lie, etc.—Joseph E. Shaver, North River,♁ Va., on Nov. 16, 1887, says:

I met a gentleman at our Fair here, from Pittsburg, Pa., who had "taken in" the "Wiley lie" solid. He said that he had *seen* imitation comb honey; asked if mine was real or imitation honey. I gave him a "good dose," and I think that he will be more careful hereafter. I told him that I would have you send him the BEE JOURNAL for Sept. 14.

I received first premium on a hive, and also on comb honey, at the Baldwin District Fair at Staunton, Va. Bees did well here this fall on the iron-weed.

[We have sent him the BEE JOURNAL for Aug. 3 and Sept. 14, with the Wiley lie editorial articles marked in "red," and hope the gentleman referred to will be more careful in the future, than to assert something as truth, concerning which he is in absolute ignorance.—ED.]

Clipping the Queen's Wing.—Mrs. L. C. Axtell, Roseville,⊙ Ills., on Nov. 12, 1887, says:

It seems to me that it is a mistake to lift the queen from the comb she is upon to clip her wing. If she is placed upon the knee on our clothing, or on the hand, there is danger of the bees attacking her when returned after being clipped. We (Mr. A. and I) clip the wings of hundreds of queens each year, and we simply take the comb the queen is on, and put it down beside the hive, and get down on our knees beside it, so we are resting easy, and take our time to catch her by her wing with the left hand, when she is walking up the comb; slip the scissors under and clip off the wing in our fingers. Never hurry, as that makes one tremble. Mr. Axtell's apiaries are both 20 miles from a river.

Convention Notices.

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited.
H. M. SEELEY, *Sec.*

☞ The joint annual meeting of the Michigan Horticultural Society, and the Michigan Bee-Keepers' Association, will be held at East Saginaw, Mich., on Dec. 6—10, 1887. Low railroad fares and reduced hotel rates will be given. Everybody interested is invited to attend.

AMERICAN
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ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

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EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

One of the Books, which is given away with club-subscriptions to the BEE JOURNAL and New York *World*, as mentioned on this page, is an illustrated volume of 320 pages, and is entitled "The History of England in Chronological Form, by F. T. Jones." On page 19 the author mentions the first voyage made from the Mediterranean Sea. It was about the year 325, before the Christian era, and was made by Pytheas, a Greek astronomer and mathematician. *He* spent some time with the inhabitants in the South-East, near Gaul (France), and says that they grew plenty of wheat, which was gathered in sheaves into large barns where the threshing was done; and avers that they were acquainted with bee-keeping, and made mead or metheglin from honey and wheat. The book gives a concise history of England from the earliest times until the present year, the last data being July 19, 1887.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00..	
and Gleanings in Bee-Culture	2 00..	1 75
Bee-Keepers' Magazine	1 50..	1 45
Bee-Keepers' Guide	1 50..	1 40
The Apiculturist	2 00..	1 75
Canadian Bee Journal	2 00..	1 75
Rays of Light	1 50..	1 35
The 7 above-named papers	5 25..	4 50
and Cook's Manual	2 25..	2 00
Bees and Honey (Newman)	2 00..	1 75
Binder for Am. Bee Journal	1 60..	1 50
Dzierzon's Bee-Book (cloth)	3 00..	2 00
Root's A B C of Bee-Culture	2 25..	2 10
Farmer's Account Book	4 00..	2 30
Western World Guide	1 50..	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75..	1 50
Convention Hand-Book	1 50..	1 30
Weekly Inter-Ocean	2 00..	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

◆

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the AMERICAN BEE JOURNAL. Subscribe *now*, and get the rest of the numbers of this year **free.** The sooner you subscribe the more you will receive for your money.

◆

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present **a Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

◆

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

◆

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

◆

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

◆

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.

BEESWAX.—22@23c.

Nov. 8. S. T. FISH & CO., 189 S. Water St,

CHICAGO.

HONEY.—We quote: White comb in 1-lb. sections or about, brings 18@20c.; some fancy shipments are held at 22c.; 2-lb. sections, 16@18c. Dark honey is slow sale. Extracted, 7@10c.

BEESWAX.—22@23c. R. A. BURNETT,
Oct. 20. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections sells as high as 19c. A few lots are held at 20c. Demand increases as fruit becomes scarce.

BEESWAX.—23c.

Oct. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.: 2-lbs., 17@18c. White clover extracted, 8c.

BEESWAX.—25c.

Oct. 24. A. C. KENDEL, 115 Ontario St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white liquid, very scarce at 7@7½c.; light amber to dark, 7@5c. Comb honey, white 1-lbs., 16@18c.; 2-lbs., 14@17c.; amber 1-lbs., 13@14c.; 2-lbs., 11@13c.

BEESWAX.—Wholesale, 22c.; in a jobbing way, from 23@25c.

Nov. 14. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candled, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.

Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@18c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.: Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.

McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@17c.; dark 2-lbs., 12@14c.; choice white 1-lbs., 18@20c.; dark 1-lbs., 14@18c. White extracted, 8@10c.; dark, 5@7c. Demand good, but light supply.

BEESWAX.—21 to 22c.

Sep. 21. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.

Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.

Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@8c. per lb. Choice comb, 18@20c., in the jobbing way. The demand is fair for honey of all kinds, and keeps pace with arrivals.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Nov. 10. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, paper boxes, 18@19c.; fancy 1-lbs., glassed or unglassed, 17@18c.; fancy 2-pounds., glassed, 15@18c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., paper boxes, 11@12c.; same glassed or unglassed, 10½@11c.; 2-lbs. glassed, 10c. Extracted, white, 9@10c.; dark, 6@7c. Demand good, market firm.

Oct. 13. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.

Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.

BEESWAX.—22@25c.

Oct. 26. A. V. BISHOP, 142 W. Water St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. The market is fairly active.

BEESWAX.—25 cts. per lb.

Nov. 10. BLAKE & RIPLEY, 57 Chatham Street.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

◆

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Advertisements.

WANTED.—WORK, by a Bee-Man who understands the business.
FRANK CURL,
47Atf (Lock Box 62), East St. Louis, Ills.

HOW TO RAISE COMB HONEY,
PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

SPECIAL DISCOUNT
ON HIVES.

In order to keep our Hive-Factory running during the dull season, we will make a DISCOUNT of 10 PER CENT, on all orders for Hives, Cases, Frames, Shipping-Crates and Bee-Feeders, received before Jan. 1, 1888.

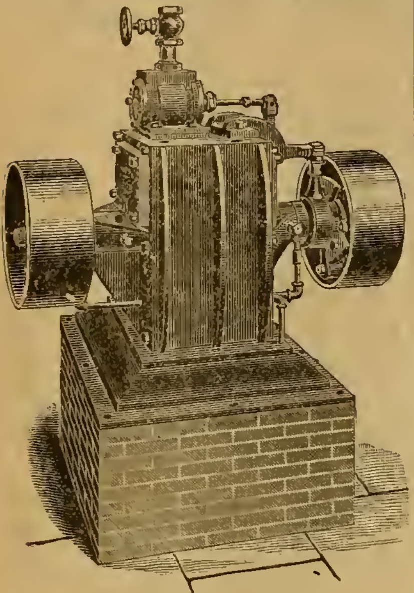
THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

A NEW ENGINE.

(Entirely New Invention.)

WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



No high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

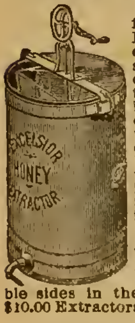
☞ Send for a Circular. Address,

HENRY RICKEL, Pres.,
44Atf CEDAR RAPIDS, IOWA.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR

HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13 inches	......$8 00
For 2 Langstroth "	10x18 "	.... 8 00
For 3 " "	10x18 "	.........10 00
For 4 " "	10x18 "	.........14 00
For 2 frames of any size,	13x20 "	.........12 00
For 3 " "	13x20 "	.........12 00
For 4 " "	13x20 "	.........18 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

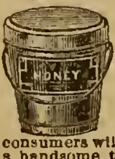
W. Z. HUTCHINSON,

Flint, Genesee Co., Mich.,

Has published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, 25 cts. Stamps taken—either U. S. or Canadian.
35Atf

NEW ONE-POUND HONEY PAIL.



This new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

The American Apiculturist

—SAMPLE COPIES FREE!—

Address, **HENRY ALLEY,**
47Atf WENHAM, Essex Co., MASS.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

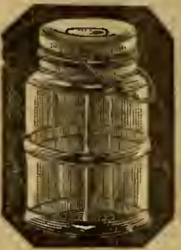
Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

GLASS PAILS

FOR HONEY.



These Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey,	per dozen,	.....		$1.60
" 2 pounds	"	"	.....	2.00
" 3 "	"	"	.....	2.50

THOMAS G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Bee-Keepers' Cards. HEAD-QUARTERS!

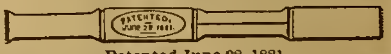
—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.

Address **J. H. MARTIN,**
4Aly HARTFORD, Washington Co., N.Y.

J. FORNCROOK & CO.,

MANUFACTURERS OF THE

"BOSS" One-Piece SECTIONS,



Patented June 28, 1881.

Will furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.

Watertown, Wis., Oct. 25, 1887.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Nov. 30, 1887. No. 48.

The Gathering of the Clan.—Our friend, Mr. Eugene Secor, of Forest City, Iowa, has sent us the following rich poem about the late convention :

At Chicago they met, a right jolly set,
On a soft, balmy day in November ;
Such a "buzz" and "roar" I heard once before—
At an old cider-mill in September.

From the West and the East, to this saccharine feast,
Came the "workers" cheerfully "singing,"
And tho' each had a wish to "sip" from the dish,
But few were inclined to be "stinging."

They talked about bees—their "legs" and their "knees"—
Of the God-given nectar in flowers.
Of its value as food, of bare-headed brood,
And the late sad failure in showers.

Our "countryfied ways," the reporter says,
Betrayed the bent of our calling.
At this we're not mad, but exceedingly glad
That our looks far exceeded *his* scrawling.

Such a constant "hum" without "smoke" or "drum !"
'Twas said each had a "bee in his bonnet ;"
But whether that's so, one thing I *do* know,
The "hive" had a *Miller* upon it.

The *Mason* bee took the *Miller* to *Cook*,
Who adjudged from its size and demeanor,
There was no need to tread on, nor even put a *Hedd-on*
As it lived on Sassafras *Root*—a gleaner.

For three days and nights, surprises, delights,
Made us happy as bees in sweet clover ;
'Tis a bright *Green* spot, not soon forgot—
In memories *Hutch*, a rich trover.

'Twould fail me to tell, how the "honey-dew" fell
From many sweet lips, though human ;
But I for one, when convention was done,
Went home from Chicago a *New man*.

◆

It is with Pleasure that we record the fact that Thomas Wm. Cowan, Esq., editor of the *British Bee Journal*, was, by a unanimous vote, made an honorary member of the North American Bee-Keepers' Society, in recognition of his recent visit, and the eminent services he had rendered to progressive apiculture.

◆

All New Subscribers for 1888, will get the remaining numbers of this year *free*.

Organization of Bee-Keepers.—This is what the Chicago *Tribune* says on our efforts in that direction at the late Chicago convention :

Thomas G. Newman, of Chicago, advocated better organization for the obtaining of reliable apicultural statistics, for the encouragement of bee and honey shows at Fairs, and for the better education of the public concerning the uses of honey. He urged that a honey company, such as exists in England, be established, and a proper uniformity of grades and prices be introduced.

Mr. Newman advocated the formation of State auxiliary societies, and thought that the future conventions should be representative assemblies, and not mass-meetings of bee-keepers as at present.

The *Herald* remarks as follows on this subject :

The Bee-Keepers' Convention was brought to a close yesterday afternoon after its session of three days at the Commercial Hotel. During that time, bees and honey have been thoroughly discussed, and each member leaves for home richly benefited by the suggestions and advice contained in the papers read.

From statistics presented to the convention, the honey interest of the country was shown to have increased so materially during the past few years that a more thorough organization of bee-keepers becomes a necessity. Steps should therefore be taken at once to that end, in order that bee-keepers may better control the sale and price of the product.

Mr. John Aspinwall, editor of the *Bee-Keepers' Magazine*, at Barrytown, N. Y., writes us as follows :

I am heartily in accord with most of your views as set forth in the new constitution you suggested at the North American Convention. There are great possibilities for bee-keeping in this country, if such an organization is effected. I am sure, if we go at it with a *will*, the object can be accomplished.

◆

Legislation for Bee-Keepers, as advocated by Dr. C. C. Miller, Marengo, Ills., was brought before the union convention last week, met with a Waterloo defeat. On motion, it was voted almost unanimously that it was "not desirable or feasible."

The Doctor, as many know by the discussion in the BEE JOURNAL of last spring, advocated the introduction of measures into the various State legislative bodies whereby specialists in honey-production could obtain an exclusive right to areas of territory surrounding their apiaries, by payment of a license fee. That such legislative measures would lead to a greater introduction of nectar-bearing plants and grasses, and insure better quality and cheaper honey.

The action of the convention settled that matter for some time to come. Dr. Miller is evidently far in advance of the times, and will have to wait until public opinion catches up with him, on that subject.

The *Inter Ocean* remarks concerning this matter thus :

Dr. Miller discussed the question of giving the apiculturist the exclusive control of a certain portion of territory. If a man plants clover for his bees, he does not want to feed the colonies of the whole township. The writer stated that if the committee were to report it should be to the effect that it considers it inadvisable at the present time to do anything in this direction. There were many misconceptions on the subject, but he was firmly of the opinion that legislation was desirable, even if not feasible.

A member suggested that bees be exempt from taxation, and pay a license which should give them an exclusive territory.

The Legs of the Bee.—The address of Prof. A. J. Cook, on the above-named subject, was very interesting, and as the Professor promised to write it out for publication, we do not attempt to give any digest of it, but will publish it as soon as it can be obtained. The daily papers of this city, on Friday, referred to it in these words :

Prof. A. J. Cook, of Agricultural College, Mich., then made an address on "The Legs of the Bee," illustrating his remarks by a pictorial chart. He treated at length the structure and use of the various parts of the bee, his words being listened to with great interest, and a vote of thanks was tendered him.—*Inter-Ocean.*

Prof. Cook, of the Agricultural College, Michigan, gave a very able address upon bees, their formation and functions, with particular reference to the structure and functions of the legs of these winged gleaners of the sweets. He explained how it was that in its search for the sweets of the flower, the pollen (or the life fertilizer of the blossom) adhered to the legs of the busy collector which, carrying it to the hive, shook it off, when it was used as a valuable part of the food for the young bees. The Professor urged the members of the convention to pay more attention to the scientific side of bee-culture. He was sure the interest of the research would amply repay them.—*Times.*

His remarks were closely followed by the assembled bee-keepers—the subject appearing to be one but rarely understood.—*Herald.*

◆

What Honey Costs to produce, was discussed at the Chicago Convention, and Dr. C. C. Miller (the President) said that upon a carefully computed estimate, the cost of every pound of honey produced in his apiary this year, was $2.47. His crop was about 300 pounds, but he had to feed the bees some 4,000 pounds of sugar syrup for winter stores.

◆

The Author of Query 491 writes us that he intended to have asked, "Would one hundred pounds of prairie hay, etc.," instead of "one thousand pounds." Yes ; there is no use of any such an extra amount of hay.

◆

The First catalogue of bee-keepers' supplies for 1888, is on our desk. It is that of Mr. George E. Hilton, of Fremont, Mich. This shows that he is a wide-awake business man. He has just built a new and commodious depot for supplies.

◆

New Subscribers can obtain the full numbers for 1887 and 1888 for $1.80, as long as we have any sets of 1887 left. There are only a few, and to get them an early application will be necessary.

◆

The December Number of *Frank Leslie's Sunday Magazine* closes the twenty-second volume. It contains interesting articles on "Gardens," by Walter Edgar McCann ; "Old Stage Coach Days" by H. W. DeLong ; "Old New Orleans," and "A Fairyland of Science" by Christian Reid, all fully, and even profusely illustrated. The number ends with a vigorous hymn tune by C. Wenham Smith, which is set to the hymn, "Brightly Gleams Our Banner."

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ↖O northwest; O↘ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

North American Bee-Keepers' Society.

THE SECOND DAY.

MORNING SESSION.

The convention was called to order at 9 a.m., by President Miller, when Mr. T. F. Bingham, of Abronia, Mich., read an essay, entitled,

Production of Extracted Honey for Table Use.

The heading of my essay implies that extracted honey has other than table uses. Those uses, however, are not in this essay to be even alluded to. I am merely to disertate upon this special sweet as it relates to table purposes.

The above heading also implies that there is a difference in extracted honey—either because it is differently produced, or that after its production it is subject to common and material changes as ordinarily handled by bee-keepers or honey-producers.

Let us first consider that honey, while being a peculiar sweet, is in no wise an exception to other non-crystallized saccharine substances in its tendency to absorb water and undergo fermentation. Honey, like other sweets, takes on these abnormal conditions, slowly or with rapidity, in proportion to the heat and moisture with which it is surrounded; the only exception to this rule being in the consistency of the honey itself. Thus if the honey is very thick, its changes are slower, while if thin, they are more rapid.

This view will enable every one familiar with honey, whether in the comb or extracted, to understand why there is such diversity in the keeping qualities of honey. Comb honey often undergoes changes while in the hives, rendering it necessary for the bees further to refine it.

I dwell upon this point particularly, as it lies at the foundation of the successful production of all strictly No. 1 honey. Much has been said and written concerning adulterated honey, etc., but it remains for the bee-keepers themselves to determine the future demand for honey.

The above outline of facts leads us directly to the conditions necessary to the production and maintenance of strictly No. 1 honey of any class, whether American clover honey (in which even Canada sympathizes heartily), or American basswood linden Canada honey, in which we all sympathize.

The first condition not depending upon the flowers from which honey is obtained, may be briefly stated thus, viz., to be left long in the hive of a populous colony of bees, before extracting. On this point much has been said and written, and while I shall not attempt argument on this *disputed* question, I will humbly ask, who shall decide?

No one will deny that bees have a large stock of "bee-sense," and that among bees "doctors never disagree!" Then if the *bees* do not regard honey as having *keeping qualities* until it has been refined and gauged and sealed, why should bee-keepers? Assuming, then, that clover or other honey has been duly refined, gauged and sealed by the bees before extracting, and that we have just now placed it upon the table in a neat Muth two-pound bottle, just in time to cool before tea, need we hope for a better presentation for table use?

As I have now the honey upon the table, and have outlined the method of its production and presentation, it would seem that the leading query had been answered. But I wish to further intimate how, having obtained the best quality of honey of any class, whether buckwheat or other, it may be maintained in its pristine excellence?

If extracted late in the season, after the weather has become cool, it will keep perfectly sound in a clean pine barrel, bunged tightly if stored in a cool place. The barrels should be stood on the end not having the bung, if designed to be kept long into the next season. By so doing the head having the bung may be easily removed, and one or two inches of the surface honey taken out.

The object of separating this surface honey from the honey below or deeper in the barrel, is to avoid mixing that which has suffered by contact with the air, from that which has not. Upon opening the barrel, if any change has taken place, the surface will be found to be soft, perhaps foamy. Remove this soft honey until you find the solid honey below. Use the foamy honey for vinegar; melt the other in a water bath, skim and put it in Mason jars, nicely sealed and placed in a cool place, the colder the better. Such honey will remain clear for a long time, and will be as fine as if just taken from the combs, as long as it may be desirable to keep it. If only such honey were offered to the public, the market would not be *overstocked*, and the *prices* would be satisfactory. T. F. BINGHAM.

After the reading of the above essay, it was discussed as follows:

J. A. Green—I prefer tin for use in storing honey, as barrels sometimes impart a flavor to the honey, and the honey cannot be liquified without first removing it.

R. F. Holtermann—I prefer the square tins with a wooden jacket.

A. B. Mason—I like the barrels. The honey can be easily and quickly removed by using a small-sized garden spade.

A. I. Root—I am not sure that barrels taint the honey, but I do know that it is never tainted by the use of tin.

Geo. E. Hilton—Second-hand lard-tins can be secured of grocers and butchers for 15 cents each, and they are excellent for storing honey, and will even answer for shipment.

President Miller—Several years ago Mr. Doolittle mentioned wooden boxes, coated inside with wax, as a cheap package for shipping honey. The honey was put in just as it was beginning to granulate, and left until granulation was completed, when it was ready for shipment.

James Heddon—I tried that 16 years ago, but it is of no value. I produce honey by having it perfectly ripened in the hives. It is first stored in large settling tanks, then drawn off into the square, jacketed tin cans, each holding about 50 pounds. The opening of the cans are securely closed by screw caps with corks inside, and the honey is then stored in a cool place until the time comes for shipment. You may talk as much as you please, but the majority of customers prefer their extracted honey in a liquid state. I will now tell how I liquify it before shipment: One end of the cellar under my honey-house is partitioned off from the rest of the cellar. In this small space is a stove, and in connection with the stove is a coil of steam-pipe which heats not only this small space, but a large box above it on the first floor. In this box can be placed 800 pounds of honey in cans. The cans are put in at night, a chunk of wood put into the stove, and the next morning will find the honey all melted; when it may be removed and a like amount of candied honey put in its place. I can in this manner liquify 1,600 pounds of honey per day with very little labor. The square, jacketed tin cans are the best package for a jobbing trade.

Prof. Cook—There is a difference in tin. Lead tin should not be used on account of the chemical action. I C charcoal tin is best.

James Heddon—Would not Coke tin answer?

A. I. Root—It does not look so nice.

N. W. McLain—Some chemist of Europe reported in the *British Bee Journal* that there was no danger from chemical action upon any tin that is heavy enough to hold honey.

T. F. Bingham—So far as chemical action is concerned, it makes no difference as to the kind of tin, so long as it is *tin*, not lead.

R. F. Holtermann—Unless Coke tin is carefully washed, it is more likely to rust when standing empty.

J. A. Green—When honey is intended for table use, tin should be used; but for shipping large quantities, oak barrels, paraffined, as you would wax them, answer a good purpose.

James Heddon—It depends upon circumstances.

A vote on the matter of vessels used for shipping honey resulted as follows: Thirteen members preferred tin; 4 preferred wood; and 40 preferred both.

At this time Prof. A. J. Cook, of Agricultural College, Mich., took occasion to speak of the recent enjoyable visit to America, of Mr. Thos.

W. Cowan, the distinguished editor of the *British Bee Journal*, who had called on so many prominent apiarists of the New World. The Professor said that it had never been his pleasure to meet with one so familiar with everything connected with bee-keeping, and with every person of any reputation as a bee-keeper. That in the future, this visit of Mr. Cowan's would often be referred to by those who were so fortunate as to meet him, as being one of the brightest events occurring in the history of progressive American apiculture. In view of the many resulting benefits, and the pleasant and profitable recollections following such a visit, the Professor moved that the thanks of the society be tendered to Mr. Cowan for his visit, and that he be elected an honorary member of the "North American Bee-Keepers' Society." The motion was seconded and carried unanimously.

Immediately following the above merited action of the convention in regard to Mr. Cowan, and so appropriate, too, was another motion made by Prof. Cook, relative to the Rev. L. L. Langstroth, the honored Father of improved bee-culture in America. Mr. Cowan had told Prof. Cook that of all the ingratitude from American bee-keepers, the greatest was that which had robbed Mr. Langstroth of the rightful benefits resulting from the invention of his movable-frame hive; and that consequently the North American Bee-Keepers' Society could not do itself more honor, and express its appreciation of his efforts, than to forward a goodly purse to Mr. Langstroth, who, in his long-continued sickness, would receive it with such grateful appreciation. The Professor then moved that a collection be taken up, and that it be added to the amount remaining in the treasury, after defraying all the legitimate expenses of the convention, the Secretary to be instructed to send the whole to Mr. Langstroth, together with expressions of sympathy from the Society. This motion was unanimously carried.

After a short recess, Prof. A. J. Cook, Agricultural College, Mich., gave a most interesting lecture on,

The Legs of the Bee,

which the Professor promises to write out for publication as soon as possible. A vote of thanks was given the Professor for his lecture, after which the meeting adjourned till 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30, with President Miller in the chair:

Mr. Thomas G. Newman, of Chicago, Ills., then gave the following address on,

The Best Name for Extracted Honey.

Eight years ago this Society passed a resolution in favor of calling honey, when taken from the comb, by this cognomen—"Extracted Honey."

Since then many efforts have been made to change that name, but so far these efforts have been unavailing; and now the matter has been referred to this Convention to decide whether it shall be changed or not, and to me your Secretary has assigned the opening address on the subject.

At the outset, let me say that there is but one valid objection to the continued use of the present name, and that is that there are so many "extracts" on the market, and some think that "extracted honey" means the "extract of honey"—not the real thing! But only the wilfully ignorant could come to such a conclusion.

If we have a *change* we must make it a *sine qua non* that the changed name MUST BE AN IMPROVEMENT! Now let us look at all the names proposed so far:

Ex-comb honey,
Comb-freed honey,
Separated honey,
Combless honey,
Uncombed honey,
Divorced honey,
Centrifugal honey,
Strained honey,
Expelled honey,
Cycloned honey,
Extricated honey,
Emitted honey,
Evolved honey,
Extruded honey,
Thrashed honey,
Quick drained honey,
Absolutely pure honey,
Honey out of the comb,
Loose honey,
Floramel,
Honey,
Liquid honey,
Freed honey,
Free honey,
Slung honey,
Bulk honey,
Pressed honey,
Honeyseim,
Pure honey,
Nectar,
Drained honey,
Thrown honey,
Clear honey.

Of all these 33 names not one is as good as "extracted," and some are perfectly preposterous. Nearly all are indefinite, inelegant, uncertain, unsuitable, and wholly inappropriate—therefore, as we should be foolish to make a change unless there is also an improvement, to make any change I think would be unwise.

When honey is *candied*, what a misnomer it would be to call it *liquid* honey!!

Just fancy calling it cycloned honey, or thrashed honey!

Two questions are to be propounded to this Convention in this matter, and as a jury it is to decide:

1. Is it desirable to make a change in the name of honey when it is removed from the comb? and the other is: 2. If so, what shall that name be?

I propose that these questions be put to vote after a full discussion, and that the decision shall be final.

THOMAS G. NEWMAN.

It was unanimously voted that no more appropriate name for "extracted honey" can be selected than its present one.

The Secretary then read an essay from Mr. J. H. Martin, of Hartford, N. Y., entitled,

Cost of the Production of Honey.

In computing the cost of production, figures should show the cost for several years. I find that the cost of production, in my bee-yards, has varied from 2 cents to 50 cents per pound. I inventory my bees at $5 per colony.

In 1886 I had 200 colonies valued at $1,000; and empty combs, hives, fixtures, etc., $300. Interest at 6 per cent., $78; hired help, rent of apiary, etc., $72. My own labor five months, at $30, $150—total expenses, $300. I secured 10,000 pounds of honey, at a cost of 3 cents per pound.

In 1883 my yield was 16,000 pounds from 160 colonies, and the cost per pound was 2 cents. In 1882 my yield from 100 colonies was 200 pounds, with expenses of $100, or equal to 50 cents per pound as the cost of production. This year the yield is $6,000 pounds, at a cost of 4 cents per pound.

Taking the average for a longer series of years, the cost of production would be 5 cents per pound. The above figures are for extracted honey.

I count my time at five months, for during the remainder of the year a bee-keeper may turn his attention to something else, *i. e.*, unless he is producing comb honey, when, if he prepares his own crates, sections, etc., three months more time should be added, and 50 per cent. should be added to the cost, making the cost of comb honey at least 10 cents per pound.

One of my out-apiaries has the following showing for this season. It contained 50 colonies, and was worked for extracted honey. Expenses, $40; honey produced, 2,200 pounds; cost 1 6-7 cents per pound.

I find that each year I can drop some of my old appliances and take a less number of steps. I think that an expert ought to manage 300 colonies if in one yard, with little or no help.

The apiarist having surplus combs for every colony, and working for extracted honey, making only a moderate increase, can handle a large amount of honey with ease.

To get the best profits from bee-keeping, but little help should be employed, and fixtures used to facilitate rapid manipulations. The bee-keeper should keep just ahead of the bees, and not spend much time talking to book-agents.

J. H. MARTIN.

After the reading of the above, an essay by Mr. G. M. Doolittle, of Borodino, N. Y., was read as follows:

Honey Production—Its First Cost, and How Much the Bee-Keeper Should Obtain for his Labor.

Many seem to suppose that an apiarist is entitled to no more pay than the man who cuts wood, carries the hod, or breaks stone upon the highway—men whose working value is about $1.25 per day. If this be true, whence is the bee-keeper to receive compensation for sleepless nights passed in forming plans to be carried out in the apiary during days of toil in the hot sun, only perhaps to find failure at the end, and the whole ground must be gone over again? There are doubtless some before whom this essay is read, who have spent more hours, days, weeks and years studying bee-keeping than the most noted lawyer or physician ever spent over their calling; and yet there are some of our numbers who are so insane as to think the bee-keeper can afford to work for the same wages as the hod-carrier—one who has probably never spent an hour's thought upon his profession.

The dealer who pays us 8 cents per pound for our extracted honey, tells us that he cannot afford to sell it for less than 10 cents per pound, which gives him a profit of 25 per cent.; yet the bee-keeper must furnish brains, interest on capital invested, rent of land and buildings, pay taxes on bees, pay for transporting his honey to market, perform one year's hard physical labor—all this for four-fifths of the selling price. There is a wrong somewhere, and the sooner we realize it the better.

After carefully looking over the ground, I believe that 45 pounds of comb honey per colony is, as a rule, an average crop. Allowing that a man can manage 100 colonies of bees, he will get 4,500 pounds of comb honey as the result of a year's labor. But this is not clear gain, there is interest on bees, $36; taxes, $4; sections, $25; foundation, $30; shipping crates, $40; double interest on $200 invested in hives, which would be needed to keep them in repair, rent of shop and land, $30; carting honey to the railroad, $11—all of which makes a cash outlay each year of $200.

Now, suppose we meekly take the wages of a hod-carrier, $1,25 per day, or $391.25 for the 313 working days of a year; to this add the cash outlay of $200, and we have $591.25 as the actual cost of 4,500 pounds of comb honey; a trifle over 13 cents per pound.

If we allow that one-half more extracted than comb honey can be secured, we have about 8¾ cents as the cost of a pound of extracted honey.

Whoever sells his honey for less than these figures, works for less than $1.25 per day.

G. M. Doolittle.

The discussion of the subject was as follows:

R. L. Taylor—In the cost of honey there are many points to be considered, and Mr. Doolittle has not mentioned all of them; for instance, the losses in winter and from disease. I think the prices given are too low.

J. A. Green—I, too, consider the price too low.

F. Wilcox—I have not stopped to figure, but I should be willing to contract to furnish comb honey at 10 cents per pound.

President Miller — This year my honey cost me $2.47 per pound.

Mr. M. M. Baldridge, of St. Charles, Ills., then read an essay, entitled:

Price of Honey—How to Control It.

The published programme of this Society informs me that "Controlling the Price of Honey" is one of the topics to be considered at this meeting, and that the writer is requested and expected to *open* the discussion:

Having for the past thirty years had more or less experience in handling honey, and having been satisfactorily successful in "controlling the price" of it, I will at once proceed to *outline* briefly my ideas of how to do it, and how others may do likewise. The plan is so very simple and practical, so it seems to me, that it should readily be understood by others even though it be not indorsed. It is as follows: To fix the price myself and sell only to consumers.

But, says one, that may do with a small crop of honey, but how would you manage with a large crop—one that you could not possibly dispose of, at retail, and through your own individual efforts? In that case I would fix the price myself and sell to consumers through retail agents, and pay the agents a liberal commission for handling the honey and collecting the pay for it. But, says one, why not *sell* the honey outright to retail and wholesale dealers? Simply because that plan delegates to others the right to fix the price on honey to both dealers and consumers. When dealers *buy* honey it then becomes *their* property, and they then have the legal right to sell to others at cost, or at any other price they please. Not so by my plan.

Now let me illustrate my plan more fully, and as follows: Suppose I have, say 1,000 pounds of comb honey in small sections. As soon as the honey is secured, say in July, I would select perhaps five responsible groceries having a good trade, and as near my apiary as possible, and supply each of them with one crate of honey—about 25 pounds at a time, and no more. This would perhaps be enough honey for the month of July.

In August, or as soon as sold, I would supply the same groceries with the same amount of honey, and thus continue from month to month, or from time to time, until all is sold. This would perhaps cover a period of eight months, as each grocer, or retail agent, should sell, on an average, at least one crate of honey per month.

A crop of 2,000 pounds could thus be disposed of, and during the same length of time, by and through ten agents, and a still larger crop by having a proportionate number of retail agents. But my experience teaches me that honey should be kept on sale, *and in sight*, every month in the year; that more or less honey is wanted by consumers all the while, and that any grocer, worthy of the name, can get rid of at least one crate of honey during each month. This being the case, the average grocery should be able to sell not less than 300 pounds per year. By dividing the crop of honey in pounds by 300 this would give very nearly the number of retail agents necessary to dispose of any size crop the producer may have, in case he is willing to cover each month of the year.

Now about the pay: This may be collected at the close of each month, or as soon as each crate of honey is sold. By this means the producer runs no heavy risk in having his honey disposed of through retail agents. In case of an assignment, or bankruptcy, on the part of the agent, the honey on hand and unsold at the time, belongs to the producer, and he has the power to remove it at his pleasure.

What about the commission for selling the honey and collecting the pay? The retail agent should have a liberal commission, so as to secure his hearty co-operation. As he has, however, no *cash* invested in the honey, a liberal and satisfactory commission to both parties would perhaps be from 10 to 20 per cent. on the retail price. I can find plenty of retail agents who would be satisfied with 10 per cent. net commission.

Now a few words about the retail price: My judgment, based upon experience, is that comb honey, in small sections, should retail at from 15 to 25 cents per pound, depending upon its quality and general condition, and not upon the weight or size of the package. Dark honey should retail at from 15 to 18 cents, and white honey at from 20 to 25 cents per pound, and the 1-pound, 1½-pound, and 2-pound sections should be sold at the same price per pound, and let consumers take their choice. To me it seems wrong to ask more per pound for the 1-pound section than for larger sizes. My observation is that the consumers are willing, in many cases, to pay as much per pound for a 2-pound section as for the smaller sizes, and that it is economy for them to do so. Honey-producers are to blame for encouraging the present difference in price, and should tolerate it no longer.

As the foregoing relates entirely to my plan of supplying consumers with honey by producers, and through their home markets, I will now say a few words about distant markets and the large cities: These should and must be likewise supplied with honey, but none, *save the actual surplus*, after the home markets have been provided for, as herein indicated, should be sent to these markets. And this surplus should not, as in the past, be sent to the present class of commission houses, but to honey-houses owned, leased, or controlled by an association of honey-producers. Each honey-house should then supply the groceries, or retail agents, throughout the city of its location, in precisely the same way that the producer supplies his home markets, so that the system shall be uniform and harmonious everywhere.

The honey-house should be strictly a wholesale supply house, and should have, as its manager, a competent and financially responsible agent of a honey-producers' association. The honey-house should have traveling agents, and enough to supply properly the requisite number of responsible groceries, or retail agents, in the city of its location, every month in the year, and likewise one or more to visit other markets in the State, or territory tributary thereto, to see that none are neglected. This plan would perhaps do away with the necessity of having more than one wholesale supply house in any one State. It seems to me that there should be such a honey-house in each of the following cities, to-wit: San Francisco, Denver, Kansas City, Omaha, Minneapolis, St. Louis, Chicago, Detroit, Indianapolis, Cincinnati, New York, Philadelphia, and perhaps a few other large cities.

And now, says one, how are the managers of these supply houses to be paid? Simply by and through a proper commission on the honey sold by and through their retail agents. This would require two commissions in order to reach consumers.

But, says one, I thought you were opposed to commission men, and that you proposed to get rid of them altogether. By no means; for in order to carry out my programme successfully commission men are neccessary, and besides I have never advocated their destruction. All I have ever proposed or desired to do was simply to stop patronizing the *self*-appointed commission men who now sell our honey at wholesale, and who have had in the past, and still have at present, a great deal to do in fixing and manipulating the price of it.

My position is, that the producers are the proper parties to fix the price on honey to consumers, and that this can be done through an intelligent committee appointed by the delegates of an association representing the honey-producers of the United States. This committee can and should agree upon a scale of prices for both white and dark honey in sections, and how the same should be graded, and these prices should and would be satisfactory not only to producers, but likewise to consumers.

The disposal and distribution of honey on the plan herein briefly outlined can be, and has been, adopted by *individual* producers, but by no means so successfully and harmoniously as by and through a protective and co-operative association of the *leading* honey-producers, and for that reason I am decidedly in favor of organizing, as indicated, at the earliest practicable moment.

M. M. BALDRIDGE.

After the reading of the foregoing essay, the following discussion took place:

J. A. Green—I find it difficult to induce the grocerymen to adopt the commission plan. I often leave honey with a grocerymen to be paid for when sold.

R. F. Holtermann—I consider that a stock honey-company is preferable to the plan advocated by Mr. Baldridge.

James Heddon—It is supposed that supply and demand control the price of products, but it does not always. The potato crop is a short one this year, and the price has gone up three or four fold; honey is a much shorter crop than potatoes, but the price has not quite doubled. The trouble is just this: Honey is a luxurious luxury, and always will be, and you may churn me now just as you did fifteen years ago, and you may continue to churn me, but it does not alter the fact. The market for a luxury is easily glutted.

A. I. Root—I am not able to grasp the plan outlined by Mr. Baldridge, but I feel that something might be done to keep up prices. I am convinced that the high price of honey does not hinder its sale. We have sold more honey this year than ever, even though the prices are much higher. Honey is a luxury, as Mr. Heddon says, and people who buy luxuries do not generally care for the prices of such articles.

Thomas G. Newman remarked that an even distribution of the honey crop over the whole country was all that was needed, even in "years of plenty;" there was no truth in the theory of over-production, the low prices were the legitimate result of an uneven distribution. Last year I saw in Mr. Burnett's warehouse, and honey depots in other metropolitan cities, the honey piled up until it was not only burdensome to the honey merchants, but it had overstocked the markets, and as a necessary result it had run the prices down until the quotations were sickening to the honey producers. The way to avoid a repetition, now that the prices had advanced to a "paying" and satisfactory amount, was for every beekeeper to see that all the home markets are well supplied before shipping any quantity to the large marts of the country. The firm of which I am a member has sold over twenty tons of extracted honey this year at the advanced prices, and with much greater ease than it has sold a much less amount at the low prices of a previous year. The poor crop of honey this year has to many, if not to all, been a blessing in disguise.

A. I. Root said that he agreed with Mr. Newman, and one of the greatest blessings was the fact that the short crop had demonstrated that there was no truth in the story of Prof. Wiley about the manufacture of comb out of paraffine, and the filling of it with glucose. The excellent article which friend Newman wrote on that subject about two months ago, was a convincing proof of its absurdity and falsity; now when prices of honey were high, and the demand urgent, not a pound of bogus comb honey was to be found upon the markets of the world. That was one good thing that had been the result of a poor crop; another was, that those who had any honey to sell got nearly double the price for it, to what they would have obtained if the short crop had not occurred, had the prices continued at the depressed rates of a year ago.

James Heddon—Last spring we tried to get up a honey producers' convention. Everybody said that we were trying to get up a "corner." We never tried to do anything of the kind. We merely wished to get together and see if something might be done to secure better prices.

A. B. Mason—I am interested in this topic, but not so much as those who do not sell their honey in their home markets.

Next came the subject to be led by E. J. Oatman, of Dundee, Ills., on

Getting the Best Price for Honey.

Mr. Oatman explained that there had been a mistake made in placing his name upon the programme; but he would say briefly that circumstances were so varied that it was almost impossible to give rules for all. In his case he traveled considerable, and was always upon the watch as to where honey could be sold to the best advantage.

Mr. R. A. Burnett, of Chicago, Ills., then read an essay on the subject of

The Commission Men and the Honey Market.

The struggle that has existed from the beginning of the era of man, seems to abate but little if at all. *To get the largest return for the smallest outlay, seems* to be as general amongst the people of to-day as amongst those who have gone down the centuries that have preceded the present one. We may find the reason for this, in assuming that it is a natural law—ours, as it were, by inheritance.

The child soon gathers ideas of value, and in the exchange or barter of marbles, each endeavors to get the best of the bargain, about to be consummated. It may be that both parties are satisfied, each rejoicing over his success, and this is as it should be; but, alas, it is oftener the exception than the rule; for very soon some friend shows to one of the parties how he was beaten in the trade, by telling him how many more "chinas" he would have given for a like amount of "mibs" and "Cornelia;" and thus destroys his peace of mind and body; for he is very apt to exert himself to find the boy who got the best of the bargain, and entreat with him to trade back; but the usual reply is, "Not much; it was a fair trade, and now if you want your Cornelia back, you can have it for all the chinas." Thus if he gets back the "Cornelia," he has lost all the "mibs," and "Cornelia" cannot do much without a constituency.

But the boy who got the worst of the marble trade grows to manhood, and as a rule forgets or laughs at the remembrance of his misfortunes in the marble period. He is now engrossed in the interesting pursuit of apiculture. By and by he has some beautiful honey to dispose off. We will suppose that he has not been a regular subscriber for a paper devoted to the pursuit in the life that he has chosen; or, if he has, that portion which was devoted to giving market reports, has been, at *his* solicitation, eliminated from its pages.

Now he has more honey than his home market can consume at a fair value. He casts about him for another outlet that may bring him the needed money to exchange for food and shelter—"for man cannot live by bread alone;" this being alike true of honey, will, I think, be conceded by all present. He is now without a guide, having cut off his source of information of what honey is bringing in the great marts of his country.

However, he knows a man living in a large city (who may be a tinsmith). This friend goes to his grocer and asks him what honey is worth. He is given the retail price, which is communicated to his country friend. The price given is a high one. At once, without more thought, he sends (probably by express), 1,000 or 5,000 pounds of honey. This brings from 10 to 50 times as much as the grocer could retail, he refuses to take it, and it lies about the express company's room until the shipper can be heard from; or turned over to sell to parties who know little about honey, and perhaps care less for it.

In case the owner goes to the city, he finds it difficult to sell the honey at anything near the price that he expected. Merchants are supplied for the present, and unless they can buy it at a very low figure, they prefer to buy in small quantities from the commission merchant, who makes honey a specialty; for if anything should be wrong about it, he can get immediate redress, and that without much trouble, as the commission man can be easily reached.

Thus baffled, the owner now seeks some commission-house to aid him to dispose of the honey. But not having market reports in his bee-paper, he finds no one whose name is familiar, and the chances are that he finds it necessary to make the acquaintance of a firm whose chief business is "live-poultry or veals, etc." They think they can dispose of his honey all right, and the much-worried bee-keeper finally takes the train for his distant home, and awaits patiently for the sale of his honey.

It so happens that the city to which the honey was shipped, is that season in the vicinity of the large yield, and these parties find that the honey does not sell very quickly, and coming to the conclusion that the price asked is too high, they drop it, and still it does not sell; until some day a shop dealer comes along, and finding that these parties are not well posted, offers a very low figure, and finally gets the honey. The husbandman gets "account of sales," and is sorely disappointed, vowing in his wrath, that he will never send honey away from home again. He has simply repeated the marble act, and lost his "mibs."

But we will look at this industry from another stand-point: Mr. Smith is an apiarist, Jones and Brown are grocers. Smith is a friend of Jones, but does not like Brown; but Smith needs sugar, and he goes around to the different establishments to get prices. He finds that Brown will give half a pound more for a dollar than he can get elsewhere; but he is a little afraid of Brown's weights and measures, and he concludes that if Jones will sell an equal amount for the dollar, he will not buy of Brown. He returns to Jones, and states what he can get at Brown's, and that he is astonished, and feels hurt to think that Mr. Jones would ask more than anybody else. Mr. Jones defends himself by stating that he cannot afford to sell for less, and have any margin. Is it to be supposed that this answer is satisfactory to Smith? No, not five times out of six; as Smith feels he must buy where it is the cheapest, notwithstanding that this course will have the effect of reducing the profit of the producer.

We might give hundreds of illustrations of a like nature to the above; for it remains a fact, that if A sells cheaper than B, the buyer will go there; but the seller must find the party who will pay the highest price. Here we may state that the commission merchant stands between the squarely opposed interests—that of buyer and seller, or producer and consumer. To get the product, he must satisfy the producer; to sell the same, he must meet the views of buyers. This, it may be said, is governed by supply and demand. Very true! but the degrees may be modified by wise measures, and this depends upon the amount of knowledge possessed by the merchant.

To succeed as an apiarist, requires, in my opinion, diligent study of all that pertains to the business, and constant watchfulness that an enemy does not come upon his charges unawares; or be found ignorant of anything that is a factor to success, and only by experience and careful attention is the highest success attained. All this is true of the merchant, although methods may differ, and the man or woman who succeeds as a merchant, might fail as an apiarist.

It is said that a Scotchman, hearing a man imitate the lowing of a cow at a play, became much interested, and applauded the effort, saying, "That's gran, mon; the coo could nae doe better hersel." Later on the same man had occasion to imitate the roaring of the lion, but he did this so indifferently that Scotty called out: "Na! na! man, *stick tae the coo!*" This would serve to illustrate the idea that we are not all fitted by inheritance and education to do all things well.

My friend, Prof. McLain, will enter into a scientific discourse on the bee, and become perfectly enthusiastic in describing its wondrous construction, and ability to perform the work that we find completed, when the honey is placed in cells securely capped or sealed. But what a sorry job I should make, were I to undertake it before a learned convention.

I read several articles in the bee-papers during the past year, and my recollection is, that in conclusion it was agreed that methods, which had proved satisfactory, were the safest, and that a complete change of the present systems of doing business would be hazardous; but that they might be improved upon, is no doubt true. R. A. BURNETT.

Then the following discussion ensued:

E. J. Oatman—A man loses by placing his goods in the hands of more than one commission-house in the same city, as they come in competition with themselves.

President Miller—Sometimes I can do better by selling my honey at home; at other times it is more profitable to send it to a commission merchant, and I do so.

J. H. Robertson—For my part, I would not give a cent for the best home market. I have not sold 5 pounds at home in the last year. I cannot bother with it.

J. A. Green—I have dealt with commission men in many large cities, exercising the usual cautions, and have never lost anything by them.

James Heddon—In that convention that we were going to have last May, if we could have gotten the Chicago papers to have said that the bee-keepers had "squealed;" that honey was too cheap; that it did not grow on bushes; that the countryfied look, and hay-seed in our hair was because we were *poor;* that we must have more for our honey or go out of the business—if we could have accomplished only this, it would have paid for holding the convention.

M. M. Baldridge—The *future* will develop the *value* of the suggestion I made in my essay. If we can induce producers to keep enough honey at home to supply their home markets, this will prevent the glut, to some extent, in the large cities, and will be one point gained. If we can likewise induce producers to place their honey on sale (on commission) at home, *at their own prices*, and see that it is *kept in sight* at all times, that will be another point gained. This can be done by individual producers, and without an organization, but they will soon discover that it would be very desirable to have co-operation. They will work this up, to some extent, among their bee-keeping friends at home, and, in due time, will be ready to ask for and to demand general co-operation. This will ultimately result in a national co-operative producers' association on the plan I proposed, or some similar one. It takes time to educate the people, and we must be patient. The only way to do is to keep hammering away and wait patiently for results.

I do not like the idea at all, of the bee-papers relying on a certain class of commission men for their market reports on honey. And why? Because this empowers the commission men to regulate the prices on honey to suit themselves. It would suit *me* and some others much better if the producers would select a competent committee to decide upon a proper price to consumers for both comb and extracted honey, and have their decision printed in each and every issue of the bee-papers, and *exclude all other market reports*. It is my belief that the prices on honey can and should be kept at about the same figures all the while. And why do I advise this? Because it is my belief that the demand has never been and never will be less than the supply—when properly distributed. I do not believe that any one can show or prove that we have a solitary State (save California) that has ever produced more than enough honey to supply the demand therein.

Honey on the Hotel Tables.

A discussion arose on the scarcity of honey in Chicago hotels, and strong reflections on these institutions came in thick and fast. The same state of affairs prevailed, it was said, in other parts of the country, and the assemblage finally resolved itself into numerous committees of one to ask for honey at all their stopping places during their pilgrimage.

Apicultural Statistics Desired.

Dr. A. S. Haskins—What we need is statistics, so that we may know how much honey there is, and its location.

President Miller—This is the one way in which bee-keepers may possibly do something to help themselves.

H. R. Boardman—By reading the reports in the bee-papers, I get a pretty fair estimate of what the crop will be. Let us encourage these reports.

N. W. McLain—I have done what I can to induce the Commissioner of Agriculture to include honey in the statistical reports; but more can be done in this direction by writing to the Commissioner ourselvers.

James Heddon—These short letters in the bee-papers have covered three-fourths of the ground that could be covered by a statistical report furnished by the government. If we could have these reports formulated by the editors, it would be a grand, good thing.

There was a long debate on the best means of procuring reliable statistics on the production of honey in all the States of the Union.

Prof. Cook stated that these statistics should be tabulated by the National Agricultural Board at Washington, the same as the cereal and live-stock branches, and asked that concerted pressure be brought to bear on State and National legislative bodies for this object. I suggest that four bee-keepers be selected in each State, to send regular reports to some bee-periodical.

The following resolution was then passed:

Resolved, That a committee of three be appointed by the President to use their influence in securing the placing of bees and honey upon the statistical list issued by the government.

The President appointed the following: Prof. A. J. Cook, Agricultural College, Mich.; Dr. A. B. Mason, Auburndale, O.; and promised to appoint the other member at some future time.

It was voted that, in the future, officers elected at the preceding meeting shall continue their duties until the close of the convention.

The convention then adjourned until 7:30 p.m.

EVENING SESSION.

The convention was called to order by President Miller at 7:30 p.m. The Secretary then read the following

Reports of the Vice-Presidents.

FROM ONTARIO, CANADA.

While the report of an inferior honey-yield throughout America generally cannot be excepted by Ontario, we are nevertheless pleased to say that a kind Providence has favored us above the average. The winter of 1886-87 proved favorable to successful wintering, and early in March reports looked promising; spring, however, resulted in much dwindling, and bees generally were not in first-class condition for the honey-flow.

Maple yielded honey exceptionally well, and in Canada some of the oldest bee-keepers say this means a generally poor honey-yield. However questionable this may be, the prediction proved correct.

From all directions reports show that the average yield was little if any above 25 pounds per colony. In my own apiary, wherein almost every colony was in the best of condition to avail themselves of the honey-flow, there was not one day when the bees worked in a manner indicative of a first-class honey-flow. Basswood, which everywhere—by the abundance of the blossoms—promised so much, was an almost complete failure, owing to the intense drouth; and yet from this source a great part of the honey of 1887 was secured.

I may say that last spring there was neither comb nor extracted honey left upon the market, thus leaving a clear market for the coming crop. This being the case, it can readily be imagined our supply will not be equal to the demand of former years at usual prices. First-class comb honey in about one-pound sections sold in quantities during August and September at 14 cents per pound, and the same article is now in demand at 18 cents per pound, wholesale. We do not glass sections.

As to extracted honey: I purchased in August, and have within the last two weeks purchased first-class honey at 8 cents per pound in 1,000-pound lots; it is wholesaled in 60-pound lots or over, at 10 cents per pound—1 cent higher than last year. It retailed at 13 cents per pound—also 1 cent higher than last reason.

While the past prices of honey, and the public idea that an advance in price places it upon the list of luxuries, prevent any material rise, we are free from that injurious cutting in prices from which we have suffered for several years. The method of marketing extracted honey has also undergone a change. We used to retail largely in tin packages of all sizes, and do very much wholsaling in kegs. The consumers found that the tin cans were of no use, and now, with of course some exceptions, the most desirable method of marketing honey, is in self-sealing gem jars, and the careful housewife can always make use of these. Of course, a house purchasing 30 or 60 pounds of honey, purchases a can. Our wholesale package is the 60-pound tin can with a wooden case about it. Honey can readily be liquified in these.

The demand for honey-labels is also largely a thing of the past, as it all adds to the expense of the honey without a corresponding return. Our consumers are also becoming acquainted more generally with the fact that honey granulates. For several years prizes have been given at some of our exhibitions for displays of granulated honey, and also best small lots of granulated honey; this custom commends itself.

As to British markets, or foreign markets of any kind, nothing has been done. The scarcity of the article alone would have prohibited export, a ready sale being found at home. The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ont., on Jan. 10 and 11, 1887. A hearty invitation is extended to our American brethren to come and take part in our meeting. In conclusion, permit me to suggest that at this convention we take up for discussion the question of "Ventilation and shade for hives."

R. F. HOLTERMANN.
Brantford, Ont.

FROM FLORIDA.

I have been unable to learn much of the success in other portions of the State, except that there has been a light crop generally, and there is very little honey on hand to be disposed of. In the southern portion of the State, where the wild pennyroyal is found, quite a little crop was gathered in the winter and early spring months, but so far as I have learned the later crop was very light.

Here on the East Coast the bees gathered honey slowly through the last half of the winter, but by April 1, they were quite short of honey, and feeding was done by most of us for several weeks.

The early crop of May and June was a light one, but enough to give many of us a surplus over and above what is likely to be required in the apiary during the year.

Little was expected of the black mangrove for this season, but although it came in late, and its season did not last as long as usual, the bees gathered steadily from it, and strong colonies stored from it as high as 100 pounds each; fourteen pounds in one day being the largest record per single colony. This mangrove honey is of fine quality, and has nearly all gone on the market at good prices.

The fall flowers have yielded a light crop that has helped considerably since the middle of September, although heavy rains have interfered largely with the gathering of it.

I think that about one-third of an average crop is all that can be claimed for Florida for the season of 1887.

W. S. HART.
Hawk's Park,⊙ Fla.

FROM IOWA.

From all I can learn, the season of 1887 has been a very poor one throughout the State. The eastern and southern portion probably suffered worse than the northwestern part. Fruit-bloom and the early blossoming of white clover put the bees in good condition. Brood-rearing went on till they were fairly booming. But they got just enough nectar from these sources to build up rapidly, and not enough to store any. White clover proved a failure for honey in all parts, so far as I know. Hence, those bee-keepers who depend on that for their white honey got scarcely any.

Those living near enough to linden forests to catch the flow from that magnificent honey-tree, got a partial crop. In my own case, at the opening of linden bloom there was hardly a pound of honey in any of my hives. For two weeks the yield was very good. Had my colonies been well supplied with honey in the brood-chambers, I should have gotten a very fair crop. As it was, I only obtained about 20 pounds per colony, of well-filled sections of white honey—all linden.

The fall crop was very light, owing to the continued drouth. I think that the honey crop of Iowa can safely be put as low as one-fourth, and perhaps it is even worse than that. The effect which this condition of things has had on prices is very marked. I can sell comb honey easier this year at 20 cents per pound than last year at 12 cents. Now it goes off quick, while last year it was a drug in the market.

I have noticed more bees working on red clover this year than ever before. The reason of this is, that on account of the drouth the clover heads were much smaller than usual, and the bees could reach the nectar. But mine did not get enough to make any show in the hives.

EUGENE SECOR.

Forest City, Iowa.

FROM PENNSYLVANIA.

This State had an exceedingly light crop of spring honey, and in certain sections an almost total failure. Late in the fall there was an exceedingly heavy flow of honey, apparently from asters, of which there was a profuse bloom. In some parts this fall, honey was abundant enough to admit of extracting, while leaving the colonies ample for winter. Owing to this flow of honey so late in the season, it is expected that bees will go into winter quarters strong and amply provided with both young bees and provisions.

During the winter of 1886-87, this market was flooded with California honey at ridiculously low prices. Grocers retailed honey as low as 8 cents per pound, and the consumption of honey was thereby greatly stimulated, and many who never touched honey before, ate and enjoyed it. While the supply of California honey at low prices lasted, all was well, but now that honey is scarce, and higher prices asked, grocers will not buy unless forced, and then in small quantities.

The public in this city having tasted honey from California that they pronounce good, are averse to paying enhanced prices for honey produced east of the Rocky Mountains, and in this market at least, California honey is, and will remain, a formidable competitor of all Eastern extracted honeys.

Our Philadelphia Bee-Keepers' Association tendered a reception in one of the historic spots of this city, viz: "Carpenter's Hall," to our distinguished visitor, the Hon. Thos. W. Cowan and lady, of England. Mr. Cowan kindly exhibited his microscope, and many had an opportunity to inspect and study the anatomy and physiology of the bee, such as was never previously afforded them.

At our annual State Fair held in this city, it has been my aim to make the bees and honey an attractive feature. I induced several bee-men to ship honey for exhibition and sale, and the results were very satisfactory. I had upwards of four tons of honey staged, and on the ground, the greater part of which was put into consumption almost immediately.

This market is at present fully supplied with honey, taking into consideration the probable sales at enhanced prices. We have had no cold weather yet.

ARTHUR TODD.

Philadelphia, Pa.

FROM GEORGIA.

The honey crop has been below an average in this State. About May 1, for about two weeks, there was a fine flow from the poplar or tulip tree, which grows abundantly along all our water-courses; but a drouth came on and the flow ceased. From then until Sept. 1, bees barely gathered enough for their own use. Since September they have gathered enough honey from asters, goldenrod, etc., to carry them through the winter.

Apiculture is every year becoming more developed in our State. The honey is put up in better shape for sale, and consequently commands a better price.

For the benefit of Northern bee-keepers who may intend to locate in the South, I will observe that apiaries, in order to be profitable in our State, must be located along the water-courses, where the only reliable forage abounds. Of all our Southern forage, I esteem the tulip-tree as the most reliable and certain, taking one year with another.

J. P. H. BROWN.

Augusta, Ga.

FROM INDIANA.

The present condition of bees in general is very good, and they will begin the winter with all the conditions favorable, strong in bees, and an abundance of well-ripened honey.

While the crop secured has been very light, yet there is enough to pay expenses in most well-managed apiaries. Throughout the season bees have done well for themselves. Their failure to secure a surplus for their owner is not altogether chargeable to the drouth, but to atmospheric conditions, for in this part of the State—east central—the drouth did not begin until July, and our honey season ends by July 1 or July 10.

JONAS SCHOLL.

Lyon's Station, Ind.

FROM VERMONT.

Bees were confined in their hives last winter for about five months, and the mortality was very great, some prominent apiarists losing as many as 25 per cent., and some even 40 per cent. Many colonies that survived were very weak and built up slowly.

There was a scarcity of early honey; fruit-bloom passed by hardly noticed by the bees, and then came a season of hot and dry weather which kept back the clover till the very last of June. Still bee-keepers were hopeful, because the previous season was a failure, and one poor season seldom follows another. Bees swarmed lively, which was also considered a good indication.

Basswood promised well by budding uncommonly full. It opened earlier than usual, but was deficient in nectar, the bees only working on it early in the morning and late in the afternoon.

Those who expected a big crop got a good many sections partly filled, while those who were more careful, only giving what room was actually needed, got their sections finished when basswood bloom closed. Many of the sections were filled with thin combs, and had empty corners, which made light weight, but otherwise the quality of the honey was very good.

I should say that the yield might be one-third of what might be obtained in a good year, though some report more and some less. In Addison county the crop will aggregate from 90,000 to 100,000 pounds.

E. O. TUTTLE.

Charlotte, Vt.

FROM QUEBEC, CANADA.

The past season with us has been a fair one for honey-gathering, particularly where clay and heavy loams predominate, notwithstanding the unprecedented lack of rain, and the rapid maturing of the flowers. In some localities honey has been gathered very late, the autumn being fine. The losses the past winter have averaged about 19¼ per cent., and the reports indicate an average production of 16½ pounds of extracted honey, and 26 pounds of comb honey per colony, spring count.

H. F. HUNT.

Seaton, Quebec.

Miscellaneous Business.

Mr. A. I. Root asked what could be done to secure a proper classification of freight as pertains to bee-hives, honey, and apiarian goods.

After some discussion it was voted that Mr. Thomas G. Newman be requested to see what could be done in this matter, and that he be instructed to present a bill at the next annual convention for whatever expenses may be incurred.

It was decided by vote to hold the next convention at Toledo, O., the time for the meeting to be fixed by the executive board.

Then the election of officers was held, which resulted as follows: President, Dr. A. B. Mason, Auburndale, O.; Secretary, W. Z. Hutchinson, Flint, Mich.; and Treasurer, Mrs. L. Harrison, Peoria, Ills.

Vice-Presidents—Illinois, Dr. C. C. Miller, Marengo; Indiana, I. R. Good, Nappanee; Florida, G. W. Webster, Lake Helen; Iowa, Eugene Secor, Forest City; Michigan, W. E. Gould, Fremont; New York, G. M. Doolittle, Borodino; Ohio, Miss Dema Bennett, Bedford; Ontario, Canada, R. F. Holtermann, Brantford; Wisconsin, Franklin Wilcox, Mauston; Vermont, A. E. Manum, Bristol; Quebec, Canada, H. F. Hunt, Seaton.

A unanimous vote of thanks was tendered Mr. Thomas G. Newman for his services in securing such a good place for holding this convention, and also for obtaining reduced rates at the Commercial Hotel, etc.; and regrets were also expressed that sickness prevented him from attending all the sessions of this convention.

It was voted that the Secretary be allowed $35 for his services.

The committee to whom was referred the "new Constitution and By-

Laws" proposed by Mr. Thomas G. Newman, reported as follows:

We recognize, with no light gratitude, the great labor and thought bestowed by Mr. Newman upon the plan of organization he has presented. We have given it all the thought and consideration that our limited time would permit, and in view of the sweeping changes suggested, and the somewhat intricate and involved plan proposed, we recommend that the consideration of the matter be postponed for one year, and that the proposed Constitution and By-Laws be printed with the proceedings of this convention, and that after a year's thought and careful consideration we may be better able to present a report commensurate with an important subject.

The request of the committee was granted, and it was requested to report at the first session of the next annual meeting.

The following letter from Mr. John Aspinwall, of Barrytown, N. Y., was read by the Secretary:

I am extremely anxious to see a national representative organization, and I believe that it can be made a great success if we will all "put our shoulders to the wheel." I hope that the members of the convention will advance as much as is in their power, the formation of a representative organization. I will send the *Bee-Keepers' Magazine* free to every member (National, State and County) who shall be affiliated to the organization, as soon as such is formed; and will stand by this offer for two years at least, after the organization is effected. I wish you all the greatest success, and say, hurrah for the new representative organization!

A discussion then followed on,

The Chapman Honey-Plant.

Prof. Cook—I should like to know the feeling in regard to whether it is advisable to try to induce the government to add the Chapman honey-plant to the list of seeds that it sends out free.

M. M. Baldridge—I do not favor planting anything for honey alone.

A. I. Root—If the Chapman honey-plant were like Alsike clover, or buckwheat, it might be well for the government to add it to its list. I believe that there is no plant that it will be profitable to cultivate for honey alone.

James Heddon—Unless a plant would spread and take care of itself, I would not fuss with it.

Upon an expression (not a vote) being taken, it was found that the members were equally divided upon the subject, and the matter was dropped.

The President then appointed the following committee on exhibits: H. R. Boardman, East Townsend, O.; R. L. Taylor, Lapeer, Mich.; and Geo. Thompson, Geneva, Ills.

The following discussion then took place on the topic,

How to Ship Honey.

In reply to a question, Mr. R. A. Burnett said that honey ought always to be sent by freight. When honey is sent by express, the rapid handling breaks out the combs; he had never been able to collect any damages from an express company, while he had done so from a railroad company. A difference in size of crates and packages is desirable. As a rule, single tier cases are better, and about ten small cases are sold to one large case.

James Heddon—The commission houses are dirty places for keeping honey. The honey is soiled in bringing it in on a dray; then the dust and rolling out and in of boxes, barrels, hen-coops, etc., still further soils the cases. The only clean honey I saw in your store to-day, Mr. Burnett, was some sent there by Mr. Hutchinson, and he had paper wrapped around it when shipped.

R. A. Burnett—Yes; and he requested me to remove it upon its arrival.

N. N. Betsinger—The crates are soiled by being put on a dirty floor in some depot before shipment; then they are placed in a dirty car, from that they are loaded upon a dirty dray, and in all this handling the dirt is rubbed from one crate to another.

The convention then adjourned until 9 a.m., on Friday.

(*Continued next week.*)

Local Convention Directory.

1887. *Time and place of Meeting.*

Dec. 7-8.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

Dec. 15.—Southeastern Michigan, at Adrian, Mich.
A. M. Gander, Sec., Adrian, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Uncapping Can for Bee-Keepers.—John Rey, East Saginaw,⊙ Mich., on Nov. 23, 1887, writes:

I have something new in store for every bee-keeper that attends the Michigan State Bee-Keepers' Convention on Dec. 7 and 8, at this place. I think that I can safely say that it is my own invention—at least I have never seen or heard of anything like it. I have no patent on it, nor do I want any. I wish to *give* it to the bee-keepers, for their good-will. It is an "uncapping can," to be attached to an extractor. When the combs are uncapped, the cappings will fall into the attached uncapping can, and the drippings will run right in with the extracted honey in the extractor, thereby saving just half the work, and not one drop of honey is lost on the floor, as sometimes is the case when lifting an uncapped comb from the uncapping can to the extractor. This "uncapping can" is detachable—it can be taken off the extractor, and laid on the shelf when not in use. I have two four-frame Langstroth honey-extractors, with one of these "cans" on each extractor. They can be made to fit any honey-extractor in use; besides, they cost only one-fourth as much as any ordinary one. I am sure that every bee-keeper that sees this new uncapping can, will have one made to be used on his extractor.

Bees Ready for Winter.—Ed. S. Eden, Eastwood, Ont., on Nov. 12, 1887, writes:

Bees are about all housed, with one or two exceptions, and in a very light condition, some not exceeding 35 pounds, hive and all. I have hopes of bringing my bees through in better condition than they were the spring of 1887.

Improved Demand for Honey, etc.—L. G. Purvis, Forest City,⊸ Mo., on Nov. 19, 1887, writes:

My crop for 1887 is about 4,000 pounds, mostly extracted honey. Nearly all of it is sold. The demand for honey is much better this fall than usual. My crop is only a little over one-half of an average yield, being 60 pounds per colony, spring count. The crop is nearly a failure here on the up-lands; my honey, except a little linden, was gathered from the bottom along the Missouri river. My bees are well supplied for winter. I winter them on the summer stands, packed in straw and chaff.

The Bees Ordered Removed.—Jonas Scholl, (66), Lyon's Station,⊶ Ind., on Nov. 12, 1887, says:

A few days ago every bee-keeper in Connersville, Ind., received an official notice from the city marshall, to remove their bees outside of the corporation, within five days. There are about 150 colonies in the town. Some are moving their bees out, while others are not, but propose to contest the order.

Not Discouraged Yet.—O. B. Barrows, Marshalltown,⊙ Iowa, on Nov. 23, 1887, says:

The past has been the poorest season for honey ever known here. There was no surplus honey. Light colonies had to be fed to keep them from starving, and will have to be fed again in the spring. All are in the cellar at this date. But with all the bad luck this season, I am not discouraged.

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BUSINESS MANAGER.

Special Notices.

To Correspondents. – It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

◆

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

◆

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

◆

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

◆

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

◆

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf :

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk ; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

◆

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

◆

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents ; if a whole piece of 12 yards is taken, $2.25 ; 10 pieces, $20.00 ; if ordered by mail, send 15 cents per yard extra for postage.

◆

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

◆

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

◆

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen ; if sent by mail, add 1 cent each for postage.

◆

We are sometimes asked who our authorized agents are. Every subscriber is such an agent ; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

Home Market for Honey.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices :

Single copy, 5 cts. ; per doz., **40** cts. ; per hundred, **$2.50.** Five hundred will be sent postpaid for **$10.00**; or **1,000** for **$15,00.** On orders of **100** or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell lots of it.

◆

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

◆

Don't do it!—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation!** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

◆

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

◆

Convention Notices.

☞ The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ontaria, on Tuesday and Wednesday, Jan. 10 and 11, 1888.
W. COUSE, *Sec.*

☞ The next meeting of the Nebraska State Bee-Keepers' Association will be held on Jan. 11, 1888, at Dincoln, Nebr.
HENRY PATTERSON, *Sec.*

☞ The Southeastern Michigan Bee-keepers' Association will hold its annual meeting in the Supervisor's room in the Court House at Adrian, Mich., on Dec. 15, 1887. A. M. GANDER, *Sec.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion : "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited. H. M. SEELEY, *Sec.*

☞ The next annual meeting of the Michigan State Bee-Keepers' Association will be held at East Saginaw, Mich., in the City Council room, on Dec. 7 and 8, 1887. The head-quarters will be at the Sherman House, where we have secured reduced rates, at $1.25 per day.
H. D. CUTTING, *Sec.*

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 45
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 75
Canadian Bee Journal	2 00	1 75
Rays of Light	1 50	1 35
The 7 above-named papers	5 25	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the AMERICAN BEE JOURNAL. Subscribe *now*, and get the rest of the numbers of this year free. The sooner you subscribe the more you will receive for your money.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@18c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.

BEESWAX.—22@23c.

Nov. 8. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—Prices range from 18@20c. for best grades, with light demand; 2-lb. sections, 15@16c. Extracted in good demand at 7@10c. Offerings of comb honey are large, and the receipts have been heavy during this month.

BEESWAX.—22@23c. R. A. BURNETT,
Nov. 23. 181 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections, 17@19c. Extracted, 9@10c. Demand fair.

BEESWAX.—21@23c.

Nov. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.; 2-lbs., 17@18c. White clover extracted, 8c.

BEESWAX.—25c.

Oct. 24. A. C. KENDEL, 115 Ontario St.

SAN FRANCISCO.

HONEY.—We quote: Extra white 1-lbs., 17@18c.; 2-lbs., 16c.; amber 1-lbs., 13@15c.; 2-lbs., 12@14c.—Extracted, white and choice, 7½@8c.; light amber, 7@7½c.; amber, 7c. Supplies becoming reduced.

BEESWAX.—22c.

Nov. 19. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote: White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.

Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.

McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop: Choice white 2-lb. sections, 16@18c.; dark 2-lbs., 15@16c.; choice white 1-lbs., 20@22c.; dark 1-lbs., 15@17c. White extracted, 6½@7c.; dark, 5@6c. Demand good, but light supply.

BEESWAX.—21 to 22c.

Nov. 23. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@16c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.

Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.

Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@8c. per lb. Choice comb, 18@20c., in the jobbing way. The demand is fair for honey of all kinds, and keeps pace with arrivals.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Nov. 10. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, 17@18c.; fancy 2-lbs., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10 to 11c. Extracted, white, 9@10c.; buckwheat, 6 to 7c. Market firm.

Nov. 22. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.

Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.

BEESWAX.—22@25c.

Oct. 26. A. V. BISHOP, 142 W. Water St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. The market is not very brisk.

BEESWAX.—25 cts. per lb.

Nov. 21. BLAKE & RIPLEY, 57 Chatham Street.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Advertisements.

WANTED,—WORK, by a Bee-Man who understands the business.
FRANK CURL,
47Atf (Lock Box 62), East St. Louis, Ills.

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at $2.25 per dozen. They will hold 25 lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO ILL.

COMB HONEY WANTED.

WE should be pleased to correspond with any one having **COMB HONEY** For Sale. We sell on Commission at highest market prices. Address,

S. T. FISH & CO.,
189 South Water St., CHICAGO, ILLS.
38A13t

The American Apiculturist

—SAMPLE COPIES FREE!—
Address, HENRY ALLEY,
47Atf WENHAM, Essex Co., MASS.

SPECIAL DISCOUNT

ON HIVES.

In order to keep our Hive-Factory running during the dull season, we will make a DISCOUNT of 10 PER CENT, on Langstroth Hives, Cases, Frames, Shipping-Crates and Bee-Feeders, received before Jan. 1, 1888.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

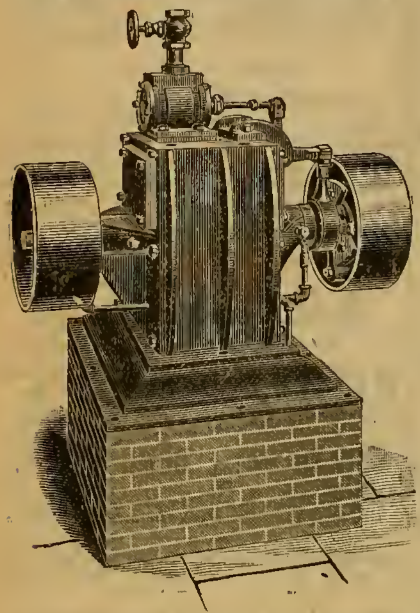
Dadant's Foundation Factory, wholesale and retail. See advertisement in another column

A NEW ENGINE.

(Entirely New Invention.)

WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



No high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

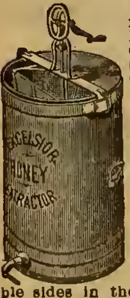
Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

☞ Send for a Circular. Address,

HENRY RICKEL, Pres.,
44Atf CEDAR RAPIDS, IOWA.

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $18.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13 inches	......$8 00
For 2 Langstroth "	10x18 "	.... 8 00
For 3 " "	10x18 "	.........10 00
For 4 " "	10x18 "	.........14 00
For 2 frames of any size,	13x20 "	.........12 00
For 3 " "	13x20 "	.........12 00
For 4 " "	13x20 "	.........18 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street,. CHICAGO, ILL.

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column.

BEE-KEEPERS' GUIDE;

Or, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1883.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

A. J. COOK, Author and Publisher,
1Aly Agricultural College, Mich.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

☞ **If you wish to obtain the Highest Price for Honey this Season, write to Headquarters, 122 Water-street, New York,**

F. G. STROHMEYER & CO.,
Wholesale Honey Merchants.

33A26t

W. Z. HUTCHINSON,

Flint, Genesee Co., Mich.,

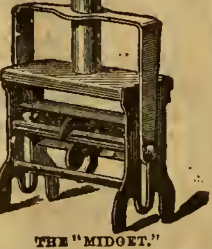
Has published a neat little book of 45 pages, entitled, "The Production of Comb Honey." Its distinctive feature is the thorough manner in which it treats of the use and non-use of foundation. Many other points are, however, touched upon. For instance, it tells how to make the most out of unfinished sections, and how to winter bees with the least expense, and bring them through to the honey harvest in the best possible shape.

☞ Price of the Book, **25 cts.** Stamps taken—either U. S. or Canadian.
35Atf

SELF-INKING RUBBER-STAMP.

2,000

Impressions for 10 cts. Will last a life-time. It prints Envelopes, Letter-Heads, Postal Cards, Sections, Clothing—everything. Your name, occupation and address, with the machine and a bottle of ink, by mail, for $1.00. Extra ½ bottles of ink for 12 cts. Show this adv't to your friends. Send me an order for 10 Stamps, & get your own free. Read what Editor Newman says of this Stamp on page 547. Agents wanted. Send for Catalogue and terms. Address,



THE "MIDGET."

GEO. T. HAMMOND,
BROCKPORT, Monroe Co., N. Y. 28Etf

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

☞ **A Liberal Discount to Dealers, by the Dozen or Hundred.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHAS. F. MUTH & SON,
Freeman & Central Ave., - CINCINNATI, O.

P.S.—Send 10c. for Practical Hints to Bee-Keepers

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.

HEADS AND FACES;

35,000 Sold.

HOW TO STUDY THEM

A manual of Character Reading for the people, an intensely interesting and attractive book. Every body should read it. 200 pages, 200 fine illus. 40 cts.

SENT FREE

A SAMPLE NO. OF THE

Phrenological Journal,

A magazine of Human Nature for every body. $2.00 a year, 20c. a no., and a list of **BOOKS** on Phrenology, Physiognomy, Health, Heredity, &c. Send address on postal.

FOWLER & WELLS CO., 775 Broadway, N. Y.
48A4t

Bee-Keepers' Cards.

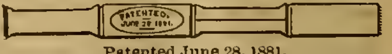
HEAD-QUARTERS!—Besides our beautiful 8-color Chromo Card, we have plain designs.—Fancy Cards, Stationery, Monograms for Business and Amusement, for old and young, at astonishing low prices. Circulars free. Package 25 Cards 10c. Neat package cards and sample honey-candies 15c.

Address **J. H. MARTIN,**
4Aly HARTFORD, Washington Co., N.Y.

J. FORNCROOK & CO.,

MANUFACTURERS OF THE

"BOSS" One-Piece SECTIONS,



PATENTED. JUNE 28 1881.

Patented June 28, 1881.

Will furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.

☞ Write for prices.

Watertown, Wis., Oct. 25, 1887.

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER,

Is published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Dec. 7, 1887. No. 49.

Buzz, buzz, buzz !
This is the song of the bee.
Its legs are of yellow,
And yet a good worker is she.

The Bee-Keepers who have been holding a convention in Chicago, are suspected of trying to make the bees *keep them.* So said the Chicago Daily *News* on the second day of the convention.

"I Don't Know when I have spent three days so pleasantly as I did at the convention at Chicago." This is the sentiment expressed by ex-Mayor Eugene Secor, of Forest City, Iowa, whose excellent "personal" poem we published last week.

The Canadian "Honey-Producer" for December is on our desk. It contains over 14 pages of the proceedings of the late Convention at Chicago. It has thus demonstrated that it is wide-awake, giving its readers the latest news of interest.

Wintering Bees was the subject given to Mr. R. L. Taylor, at the late convention in this city. It will be found in full on pages 776 and 777, and a careful perusal will convince any one that it was confided to the right person. It should be, and we have no doubt it will be, read and re-read by thousands of our subscribers.

The Annual Honey Product of North America is about one hundred millions of pounds, and its value is nearly $15,000,000. The annual wax product is about half of a million pounds, and its value is more than $100.000. There are about 300,000 persons keeping bees in North America. We make this estimate in response to many requests for the most accurate statistics obtainable.

Photographs.—We have received the following photographs for our Bee-Keepers' Album: Portrait, residence and apiary of Mr. J. E. Cady, Medford, Minn.; residence and apiary of Mr. T. S. Bull, Valparaiso, Ind.; and honey exhibit of Mrs. J. N. Heater, Columbus, Nebr. The Lincoln *Journal* states the latter was tastefully arranged, striking in appearance, and was admitted to be the finest exhibit ever made in the State. All have our thanks for these valuable additions to our desk album.

Teach the Young Folks.—In a short notice of the "Book about Bees," on page 659, by the Rev. F. G. Jenyns, we made this assertion:

> It is intended mainly for young people, but no one, of whatever age, can peruse its pages without being greatly profited. It treats of the history, habits and instincts of bees, and teaches the fundamental principles of modern bee-keeping.
>
> It is just such a book as should be in the hands of the young people of every land, from which may be learned those lessons of industry, economy and thrift which are so essential to the fullest measure of success.

When the author had read that notice of his book, he wrote us concerning it as follows:

> You quite enter into the spirit in which my book was written. As the young of to-day are to be our future bee-keepers, I feel that it is most important they should begin early to know the first principles of bee-keeping, and that they should not begin (as indeed no one ought) without knowing something of the natural history and habits of the bee, and the economy of the hive, and thus know the why and the therefore of the direction for management given in the guide books which may afterwards come into their hands.
>
> My book, therefore, is not a "guide," but simply designed to clear the way for such, and incite an interest in the youthful mind.

This reminds us of the story of a butterfly and a bee, who are represented by A. H. Baldwin, in *Little Folks*, as having a conversation in which the bee carries off the honors, by saying, "When I die, the work that I have done has not only maintained me during my life, but will benefit others after my death." Here is the story:

> On a splendid autumn day, when all the flower-beds were ablaze with purple, and orange and crimson, and gold, a modest brown bee and a gorgeous butterfly found themselves together on the same cluster of a scarlet geranium.
>
> "Dear me, how you *do* slave, neighbor !" said the butterfly. "Here have you been working away ever so long on this one flower, whilst I have roved over a dozen beds in the same time. And then how people admire me, and stare at me, and run after me !"
>
> "Yes ; and sometimes catch you," said the bee ; "and kill you."
>
> The butterfly was somewhat taken aback ; but he was a jaunty fellow, and soon recovered himself.
>
> "Well, I'm off !" he said. *You* can stay and plot here all day on one stupid flower if you choose. Give *me* constant change."
>
> "All that is very fine," said the bee. "But those who gad about so much, seldom do any good work. Besides, as you say, you only stop a moment on each flower, whereas I never leave it till I have sucked all the honey out of it. So I work, and yet fly about all the same."
>
> "Yes, yes !" answered the butterfly. "But all your toil only causes you to be killed for the sake of your honey. I die after an idle life, and you after a busy one. But we both die so where is the difference ?"
>
> "We must *all* die," said the bee ; "but there is a great difference. *You* die, and no one regrets or remembers you. But when I die, the work that I have done has not only maintained me during my life, but will benefit others after my death."

This book was written for youthful and unfolding minds, and should be in the hands of such. We can supply it for $1 a copy. A copy of it and the BEE JOURNAL for 1888 (both by mail post-paid) for $1.75.

The Odor of Honey pervades the halls and rotunda of the Commercial Hotel, while the products and all paraphernalia of the apiary may be found in the ladies' ordinary. It is there that the Bee-Keepers' Union Convention is in progress.—*Chicago Herald.*

Father Langstroth.—The following from Mr. Hutchinson will explain itself:

> Enclosed you will find a card from Father Langstroth, acknowledging the receipt of the money sent him by the North American Bee-Keepers' Society. I think its perusal will more than repay all who contributed their mites towards our dear friend's comfort. His card reads as follows:
>
> DAYTON, O., Nov. 26, 1887.
>
> DEAR FRIEND HUTCHINSON:—The check for $32.20 was received. I heartily thank my bee keeping friends for their kind remembrance. That money enables me to get a heating stove, which will be a great comfort to myself and family. I often call to mind the pleasant talks we had in that front chamber of our hospitable friend Newman. Was very sorry to learn that you were such a loser by fire. My health never was better. Your friend,
>
> L. L. LANGSTROTH.

It is a pleasure to know that the kind remembrances of his friends "in convention assembled," will contribute to his comfort during the coming winter. We often think of his visit to the convention and at our residence a few years ago, and it seems that our friend has not forgotten it either. May the future days of "the grand old man" be pleasant and peaceful. All will be glad to learn that his health "never was better."

An Illustrated Instruction-Book of Bee-Keeping, is the name of a handy German pamphlet of over 200 pages, that we have recently received. Mr. J. G. Bessler, of Ludwigsburg, Germany, is its author. It is a thorough and complete treatise on bee-keeping and the nature of bees. The illustrations are exceedingly distinct, and the whole mechanical work of the pamphlet is a credit to the art of printing. To those who read the German language, this work will doubtless prove a great aid in handling bees properly, and thus return to the bee-keeper all the benefits to be derived from the right management of bees.

Home Markets.—The Chicago *Tribune*, in its report of the convention, says:

> "Controlling the price of honey," was the subject allotted to Mr. M. M. Baldridge, of St. Charles, Ills., and he advocated the working up of the home trade by honey-producers, and that the surplus only should be sent to the large cities, where "honey-houses" controlled by the producers should distribute the product at a fair, remunerative, and uniform price.

Mr. Baldridge has followed it up with more on the same subject in this week's BEE JOURNAL.

Mr. Eugene Secor's essay on the subject of "Bee-Keeping alone, or with other pursuits," will be found on page 774 of this issue. When other pursuits are necessary, Mr. Secor prefers dairying, gardening, poultry, and the cultivation of small fruits.

Some stated that it was appropriate to unite bee keeping with professional work which provided intervals of leisure during the five busy months for apiculture. A perusal of Mr. Secor's essay will repay you.

France has always been a land of intrigue, and the recent events, which shake the present government, bring forward Gen. Boulanger, whom they were scheming to suppress. The sketch by W. H. Gleadell, in *Frank Leslie's Popular Monthly* for December, gives all needed information of this "Coming Man."

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Arranging Hives in the Cellar.

Query 497.—How should the hives be arranged in the cellar to prevent the dead bees from clogging the entrances ?—Lewis, Ohio.

Raise the hives off the bottom-boards.—DADANT & SON.

Raise the hives 2 inches from the bottom-boards or bench.—G. M. DOOLITTLE.

I have had no trouble in that direction. Leave a full hive-entrance.—H. D. CUTTING.

Place the hives in rows so that you can pass between them and clear out the dead bees about once a month.—G. L. TINKER.

If your hives have loose bottom-boards, you can fix them in a minute; if tight bottoms, bore a hole in the end of the hive 2 or 3 inches above the entrance.—JAMES HEDDON.

Place a rim 1½ inches wide under each hive, or raise them in some manner from the bottom-board.—W. Z. HUTCHINSON.

Give plenty of room under the frames, and draw out the dead bees once in a while by means of a large wire bent at right angles at one of its ends.—G. W. DEMAREE.

Unless you can examine the hives at stated intervals, and remove the dead bees from the entrance, you had better remove the bottom-boards when placed in the cellar.—J. P. H. BROWN.

Give them good food and a good cellar. If the temperature varies too much, it would be well to have the hive raised a little from the bottom-board.—A. J. COOK.

I should judge that many ways could be devised, that would be successful. Any plan that will keep the entrance free, will answer, and it cannot require much ingenuity to devise such plan.—J. E. POND.

Clean them out once or twice a month, with a piece of scrap-iron. Or set up the first hive in a row at an angle of 45°, and then lean each hive against the preceding one at the same angle, and the entrance will not become clogged.—C. C. MILLER.

Leave the entrances open, and raise the hives above the floor, if they have tight bottom-boards; if loose bottom-boards are used, you can easily remove the dead bees at regular intervals.—THE EDITOR.

Winter Coverings over the Frames.

Query 498.—When bees are wintered in the cellar, which are best to put over the frames, honey-boards, quilts, enameled or other cloths ?—Carl, Ills.

I prefer quilts.—J. P. H. BROWN.

A plain board.—W. Z. HUTCHINSON.

I use enameled cloth very successfully.—H. D. CUTTING.

I use quilts in connection with sawdust cushions.—G. M. DOOLITTLE.

We use a straw mat. Cloth will do, if not tight-fitting.—DADANT & SON.

Either are good. I leave on mine the same sheets that they had when out-doors.—C. C. MILLER.

Either will do, if the hives are well ventilated at the entrance. I prefer a thick cloth cover in winter, when wintering bees on the summer stand.—G. W. DEMAREE.

All of my experimenting up to the present time causes me to believe that the board cover is as good as anything else, whether out-doors or not.—JAMES HEDDON.

If the cellar is right, it makes little difference. I used to think that quilts were superior; but upon trial I find that boards are just as good.—A. J. COOK.

Honey-boards will do, with large lower ventilation; but quilts are best, or a frame of chaff in cellar wintering, allowing free upward ventilation. In out-door wintering I prefer the tight honey-board (¼ inch thick) over the frames, and no free upward ventilation.—G. L. TINKER.

I do not know. The whole secret consists in giving such ventilation as will prevent excess of moisture from gathering in the hive. The best is that which proves successful with the least trouble.—J. E. POND.

There is but little choice between the covers for frames mentioned—some prefer one and some another, just as humanity does when choosing a mate for life.—THE EDITOR.

Convention Notices.

☞ The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ontaria, on Tuesday and Wednesday, Jan. 10 and 11, 1888.
W. COUSE, *Sec.*

☞ The next meeting of the Nebraska State Bee-Keepers' Association will be held on Jan. 11, 1888, at Lincoln, Nebr.
HENRY PATTERSON, *Sec.*

☞ The Southeastern Michigan Bee-keepers' Association will hold its annual meeting in the Supervisor's room in the Court House at Adrian, Mich., on Dec. 15, 1887. A. M. GANDER, *Sec.*

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice.
J. W. BUCHANAN, *Sec.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited. H. M. SEELEY, *Sec.*

☞ The next annual meeting of the Michigan State Bee-Keepers' Association will be held at East Saginaw, Mich., in the City Council room, on Dec. 7 and 8, 1887. The head-quarters will be at the Sherman House, where we have secured reduced rates, at $1.25 per day.
H. D. CUTTING, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal

Suggestions about the Late Convention.

MRS. L. HARRISON.

I was very sick before I reached home, and have been confined to bed ever since, and the fever I had very materially assisted me in re holding the late convention, time and again. I would like to see this Society a strong power in the land, and I think it could be, with fore-thought and management.

The ventilation during the late re-union was an improvement on former like occasions, but it could have been greater. The windows were weighted, and could have been raised to the top of the casing, at the bottom, and sufficient for a draft, but so the sashes would not fit in the middle of the window; also lower the upper sash a little, not more than half an inch. Then there would have been a little fresh air coming in continually at the middle and top of the window. If all the eight windows had thus been arranged, I think there would have been no complaint from drafts or foul air, if the door had been kept open.

The men appeared to be much more afraid of drafts than the women, which is probably owing to their uncovered heads. I think that it would be better for them to keep on their hats as they do at "Quaker meetings," rather than breathe poisonous air. At one time during the sessions, there was but one window open, and that was let down very low, and the door was open. Mr. —— came in and sat down in the draft between the two, and immediately ordered the window closed. There was plenty of room at either side of this draft, where he could have removed his chair. When the veins in my head got so big that I was in danger of being carried out, I anticipated and retired to save disturbance; as I am pretty weighty I did not want to impose upon others' good nature.

I have been taught a lesson on foul air, that I shall never forget. My oldest sister fell unconscious at a concert, and in a very short time passed over "the divide," cut down in the midst of a very useful, active life. Those of us who gathered at her funeral, afterward for days ate of pies and bread that her own hands had baked.

STICK TO THE PROGRAMME.

Yes, every time. I know a lady who could not attend all the time, but consulted the programme, and came ten miles on a train several times, to hear special subjects discussed, and was disappointed every time.

On a similar occasion, Mr. O. O. Poppleton said to me: “I'm not going to be here this afternoon, as ‘comb honey’ will be under discussion, and I'm not interested as I work for extracted honey, and I'm going to attend to some business matters in the city.” If the programme is carried out, then members can choose their time for rest, pleasure, or business, and not be deprived of hearing the discussions, for which they have spent time and money.

It would be well for the Society to engage a separate room for the exhibition of supplies, and the more implements the better. Then let the exhibitors give the President notices like the following: All those desiring to hear Mr. ——— describe his hive, can have the pleasure to-morrow at 10 a.m., in Room No. 2. At 5 p.m. Mr. ——— will describe, and tell how to use his bee-smoker.

In the old days of lighting with candles, there was in use extinguishers to put out the light. If some of our inventors would turn their attention in this direction, they might get up an extinguisher to put out “lights” when they have shed “their rays” long enough. The A B C class are generally not satisfied for their outlay, and they might organize in the “bee-keepers' supply room,” and choose some of the glib talkers to instruct them.

Peoria,⊙ Ills.

[The points made by Mrs. Harrison are all important and strictly correct. There is nothing more important than good ventilation. When we were present no fault could be found with the ventilation.

As to following the programme in any convention, we fully agree with Mrs. Harrison. It should be strictly followed. If there is any time to spare, it should be occupied with *new* business or discussions, and not by transposing the order of the programme. The latter causes confusion, disappointment, and often disgust. When the programme is strictly followed, there is no chance for any one to find fault, and no one can then be disappointed.—Ed.]

For the American Bee Journal.

Selling Honey on Commission.

M. M. BALDRIDGE.

Since the Chicago bee-meeting I have received the following from a Chicago commission house:

“Have you any honey at present? We get from 20 to 22 cents per pound for the best. It is not so plenty as usual this season. When it is scarce and high, it tastes better. If you have none to ship now, please keep our address for next season.”

Of course honey “tastes better” when it is “scarce and high!” that is, if reasonably high and scarce; and honey-producers have the power to secure both of these conditions whenever they choose to exercise it. Mr. A. I. Root stated at the Chicago convention, that he did not see that the present prices for honey materially lessened the demand, and this seemed to be a new revelation to him. For several years past Mr. Root and many others have advocated *low* prices for honey, honestly believing that this would educate the people to use it freely, and thereby increase the demand. But this was contrary to my experience, and I think I have had about as much as any one.

It appears from the above that the “best” comb honey will now bring from “20 to 22 cents per pound” at wholesale. That, so it seems to me, is about as high a price as choice comb honey, in small sections, should ever bring at wholesale. The retailer, however, cannot afford to put his *cash* into such honey and sell the same to his customers for less than 25 cents per pound. But how much better it would be for him to keep his money out of it, and sell the same on commission, and pay for it when sold. Even 10 per cent. commission on the retail price, would pay him a better profit than to buy it outright at 20 or 22 cents per pound. Reader, please ask him and see what he says about it, and then report.

St. Charles,♁ Ills.

For the American Bee Journal.

The Pan-Handle, W. Va., Convention.

The Pan-Handle Bee-Keepers' Association met on Oct. 26, 1887, at Wheeling, W. Va. The convention was called to order at 10 a.m. by the President, Henry Lewedag. The Secretary called the roll, and then read the minutes of the previous meeting, which were adopted.

On motion, it was decided to employ a stenographer to report the proceedings of the convention. After further routine business was transacted, the convention adjourned until 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m., and the President then delivered his annual address, giving a short history of the Association, and saying he hoped that all the members would work for its success.

The election of officers for the ensuing year was then held, and resulted as follows: President, Henry Lewedag; Vice-President, L. C. Seabright; Secretary, W. L. Kinsey; and Treasurer, August Goetze. On motion the President was authorized to appoint a Vice-President from each county represented, as follows: D. N. Milner, for Jefferson county, O.; H. J. Shriver, Preston county, W. Va.; Philip Tisher, Monroe county, O.; and J. A. Buchanan, Brooke county, W. Va.

The question, “How do you know when a queen is fertilized?” was discussed at some length, many good points being brought out, after which the convention adjourned until 7:30 p.m., when an evening session was held. The questions considered were, “Is it profitable to double up colonies in the spring?” and “When and how do you prepare colonies for winter?” After much discussion the convention adjourned until 9 a.m. the next day.

SECOND DAY.

The convention was called to order at 9 a.m., and after the usual opening business was completed the following named ladies were made honorary members: Miss Bessie B Baron, Miss Bird Wickham, Mrs. Margaret Seabright, Miss Gertrude A. Seabright and Miss Esther A. Seabright, Mrs. Mary E. Deary, Miss G. E. Edwards, Mrs. E. Z. White, and Mrs. W. S. Taggart.

The following were admitted as regular members: Chas. C. Schword, J. W. Weiler, Wm. J. McHugh, Lindly Bracken.

The questions, “How many bees should a colony have to winter well?” and “Is careful breeding necessary?” were then discussed in a very interesting manner.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m. The question, “Does it pay farmers to keep bees?” was then considered, Mr. Taggart arguing that a good, practical farmer would find it profitable to study bee-culture, and keep some colonies of bees.

Mr. Seabright differed from Mr. Taggart's views very decidedly, and argued that it was not practical; that farmers did not know, and would not learn, how to handle bees; that they hived them in old boxes, and that a lack of proper care in other ways made the bees produce a poor quality of honey, which was put on the market at a low price, and thus injuring the trade of the regular bee-keepers.

Mr. Weiler said that he had experience both as a farmer and a bee-keeper, and he knew that a farmer could produce good honey, and make more money (considering the amount invested) than he could in almost any other branch of agriculture. He found the bees to be of considerable use about the farm, aside from their honey-gathering qualities.

Mr. Wendelkohn said that he had commenced keeping bees in 1836, and in the spring of 1839 his bees had an attack of foul brood, but by careful treatment, and using sulphuric acid, he had been enabled to save all his colonies.

The number of colonies represented at this meeting were 459.

The convention then adjourned to meet in Wheeling, W. Va., on the third Wednesday and Thursday of October, 1888.

W. L. Kinsey, *Sec.*

For the American Bee Journal.

North American Bee-Keepers' Society.

THE THIRD DAY.

MORNING SESSION.

President Miller called the convention to order at 9 a.m., and W. Z. Hutchinson, of Flint, Mich., gave a short address upon

The Production of Comb Honey,

the main ideas being in substance as follows:

To produce comb honey we must have populous colonies at the beginning of the honey harvest, and to secure these, breeding must go on rapidly and uninterruptedly for two months previous to the honey harvest. Aside from food in abundance, *warmth* is the one great requisite for breeding. The heat from a colony of bees is sufficient; the difficulty is, that it is lost by radiation. To prevent this loss, pack the colonies when taken from the cellar; and allow the packing to remain until time for putting on the supers.

President Miller—How would you pack the bees?

W. Z. Hutchinson—I would surround each hive with a box of cheap lumber. I use the shade-boards, tacking them together, and using a shade-board for a roof. I prefer sawdust for packing, as the litter resulting from its use is a benefit. I would use supers only one tier of sections high, filling them with foundation.

N. N. Betsinger—Would you use separators?

W. Z. Hutchinson—No, sir.

N. N. Betsinger—Do you not think that straighter combs can be secured by using separators?

W. Z. Hutchinson—I do; but I can secure combs that are straight enough without them.

N. N. Betsinger—But to secure the very finest honey, do you not think their use is necessary?

James Heddon—Who has a finer lot of honey in Mr. Burnett's store than Mr. Hutchinson? No one. What dealer in this city has more or finer honey than Mr. Burnett? Not one. To what city is more honey sent than to Chicago?

W. Z. Hutchinson—This whole ground of comb-honey production has been so well covered in previous discussions that I feel it a waste of time to discuss it further.

The convention next listened to an address by James Heddon, of Dowagiac, Mich., upon

Bee Hives and Fixtures.

Mr. Heddon said: As an opening to my remarks, I think I can do no better than to repeat the little lecture that Mr. R. C. Otis recited when he came to my house years ago, and sold me a right to use the Langstroth hive. He began something like this: "When bees swarm, they look for a shelter, some place to get into out of the sun and storm; a nail-keg or a box, or even a hollow-tree suits them just as well as the most elaborate hive in existence; and they thrive just as well, and the nail-keg meets every requirement until it is full, and the bee-keeper wishes to get his share of honey, then the nail-keg is not just the thing; then we need a hive so constructed that the bee-keeper can get his honey with the least trouble." Now I think this an excellent speech, and just as true now as then. In making hives the great trouble is, that bee-keepers are trying to make hives that suit the bees instead of themselves. This subject is a vast one, and I scarcely know where to begin, what to say, nor, perhaps, where to leave off. I think I had better resolve myself into a question-box, and let you ask questions.

President Miller—Would it not be well for you to explain the Heddon hive and its workings?

James Heddon—If the convention so desires. [Yes, from several.—Sec.]

Dr. A. B Mason now brought forward a Heddon hive, and placed it upon the table, and Mr. Heddon proceeded to briefly explain its merits.

James Heddon—The frames completely fill each section of the hive; by reversion the bees fill them solidly full of comb, and being held in place by thumb-screws, nearly all of the bees may be shaken from the hive.

A. I. Root—Would it not be better if the thumb-screws were made of metal?

James Heddon—No, because they would cost so much that you would make them too small, then the threads would not hold in the wood, and it would be slow work turning them out and in. The wooden screws should not be made too large, and should be boiled in tallow; they will then hold sufficiently strong, and will never swell enough so that they cannot be turned.

President Miller—I have publicly given Mr. Heddon credit for his break-joint honey-board. Am I wrong? Did any of you use it before Mr. Heddon did? [No one replied.—Sec.]

President Miller—How many have used the metal queen-excluding honey-board, and think its use a detriment? [Three members arose.—Sec.]

President Miller—How many have used them, and think they secure as much honey as when they are dispensed with? [Twenty-five voted.—Sec.]

N. N. Betsinger—What is the advantage of the break-joint principle?

James Heddon—It prevents the building of brace combs. The bearings of my hives are only ⅜ of an inch, and by putting them together with a sliding cornerwise movement, but few bees are killed. With the beveled edge this is impossible.

A. I. Root—How about the propolis? Would not this cause trouble in making this sliding movement?

Miss Dema Bennett—I would like to ask Mr. Heddon if there is no trouble from water coming in through these square joints. I have had trouble by the water coming in and wetting the cushions.

James Heddon—These two questions answer each other. If there is so much propolis thrust into the joints that it causes trouble in manipulation, how is the water to get in? I never use cushions or quilts inside the hive during the propolis season, the bees have access to all parts of the hive, and all cracks are stopped by propolis, so that no wind or water enters.

N. N. Betsinger—Does Mr. Heddon wish us to understand that his hive is the first one with a double brood-chamber?

James Heddon—It is the first one with a horizontally-divisible brood-chamber.

N. N. Betsinger—I have used hives years ago embracing the same principles.

James Heddon—Will Mr. Betsinger please point out to us where he has written about this hive?

N. N. Betsinger—I did not write about it. No one offered to pay me enough to describe it, and I could not afford to write for nothing. So far as the shaking out is concerned, I can shake the bees from a Langstroth hive as quickly as they can be shaken from a Heddon hive. Simply drive them down with smoke, and then shake them out. Langstroth frames, either broad or wide frames, have projections to handle them by.

As a reply Mr. Heddon simply held up one of his frames by the edges of the side-bars.

Mr. Eugene Secor, of Forest City, Iowa, at this time read an essay, entitled,

Bee-Keeping Alone, or with Other Pursuits?

In the choice of a vocation there are certain questions which rightfully claim the consideration of every man or woman. The instinct of self-preservation implanted within us, naturally makes the leading one, whether most important or not, this: Will it command sufficient returns in dollars and cents to afford a comfortable support for self and family? Another is, is it congenial? In a country where every one may choose his occupation, free from the degrading curse of caste, no one should follow a pursuit that is not in harmony with his inborn predilections.

Another question is, or ought to be, will it properly cultivate the intellectual and moral nature, so that the worker will develop and grow in all his faculties, while striving to earn a comfortable subsistence. "It is not *all* of life to live," according to the common acceptation of the term.

Now, unless these questions can all be answered in the affirmative, there is something lacking in the employment, or in the make-up of the person.

As to bee keeping, there can hardly be a question as to its intellectual and moral tendency. For proof, I have only to cite the shining examples, both living and dead, who are, or have been engaged in the pursuit. Who ever heard of a bee-master being charged with a crime?

It will be *congenial* to those fitted by nature to follow it, just as a natural mechanic feels at home with the tools with which he cheerfully earns a living. There is no use in saying that every man will make a successful bee-keeper, any more than it is to say, every man is by nature an artist, and every woman a musician. Unless a person possesses certain natural qualifications, or can acquire them by cultivation, he would very likely make a failure of bee-keeping. Among the necessary qualifications are, perseverance,industry, continuity of purpose, love of home more than of riches, a talent for looking after details, promptness, and at least tolerable health. If he possesses all these coupled with a love for natural history and botany, and is as enthusiastic and untiring as most one-idea men are, he may conclude to make bee-keeping a life business—provided always he has, or can obtain, a favorable location. It would be folly for a person to expect the fullest success as a honey-producer on a bleak Dakota prairie, under the present state of the art. Talk as we please of the desirability or practicability of raising artificial pasture for bees, it has not yet been successfully and economically done.

Therefore, in my judgment, unless in addition to all the required qualifications, there is the natural honey-flora in abundance, it will be wise to couple bee-keeping with some other pursuit. If the locality is favorable, and the establishment of out-apiaries is practicable, the business may be made fairly remunerative. As a rule, however, I believe that bees should form a part of the surroundings of every ideal rural home; not only because it adds to the beauty of the landscape picture, but because, in the economy of nature, bees are necessary to the perfect fertilization and fructification of the vegetable kingdom, and that object can best be attained by the proper distribution of the means to accomplish the end sought.

If bee-keeping were in the hands of specialists only, it is quite reasonable to suppose that some localities would be overstocked, while others would be destitute of bees. Why does every cottager persist in keeping his pig, instead of leaving the matter of pork-raising to the specialist? Because the pig is a scavenger, utilizing many little scraps that would otherwise go to waste. Bees are gleaners, also, bringing many a golden drop from the waste places of our imperfect agriculture.

I believe in specialists to this extent: Every person ought to know how to do some one thing thoroughly, and if his capacity is limited to the acquisition of the knowledge necessary to master that, he ought to stick to it. But the man who only knows one thing is a one-idea man. His capacity for enjoyment in this world is also limited. His horizon is the narrow bound of a single thought, when just beyond lie the limitless fields of culture awaiting the polished plowshares of investigation and progress. It broadens and develops a man to know more than one thing, and it seems to me to be reflecting on the intelligence of our race to think that man is not capable of mastering more than one branch of learning.

I see no better reason why bee-keeping should be confined to specialists than hog-raising. All who have given the subject thought, know the latter industry can only be enlarged to certain limits. The massing together of large numbers of either animals or men,soon develops disease and death—nature's remedy for restoring the proper equilibrium of life. Who shall say that foul brood is not Nature's punishment for overstocking and a gentle hint to more widely distribute the bees which she intended to act as marriage priests to *all* the plants in her flowery kingdom? In my judgment 100 colonies in one yard comes very near the limit of profitable increase.

If then, it is not desirable to confine the production of honey to specialists; and if, when one's immediate locality is sufficiently stocked; and he does not care to establish out-apiaries enough to occupy his whole time, or to afford him an ample income, what occupation will best fit bee-keeping? If only a few colonies are kept it makes but little difference, if the person is at home in the morning or evening. It need not consume more than five minutes per colony each day to properly look after them. If a larger number are kept, the employment should be such as would give work when not required in the apiary. I see no reason why dairying, or stock-raising, or both combined, will not be in perfect harmony with bee-keeping. This branch of farming employs one at home, keeps him busy in winter, occupies his time chiefly in the morning and evening, and gives ample scope to his ability and capital. The increase of bee-pasturage will also increase his available food for stock, and *vice versa.*

If near a good town, the raising of fruits (if we except strawberries, which ripen at the wrong time in the North, and yield no nectar), is well adapted to go with bee-keeping. Raspberries, blackberries and gooseberries are especially good honey-plants, and neither ripen with us till the swarming season is about over. Apples, plums, and such other tree fruits as can be successfully grown are excellent honey-producers. Our season's success in the apiary often hinges on the impetus given to the bees by the abundance of bloom on these fruits. The keeping of poultry in connection with bees has already been mentioned, and no doubt could be successfully managed.

It appears to me that with any of the professions, if we except physicians in active practice, bee-keeping could be carried on simultaneously. Ministers, lawyers and teachers need some recreation in the open air, to counteract the bad effects arising from sedentary habits, and where these are located in rural districts, what reason is there why they may not combine pleasure and profit in a well-managed apiary? Croquet, lawn tennis and base ball might be neglected by the ardent student of bee-culture, but perhaps the country would survive. The habits of study of professional men are a guaranty that they would master the science of bee-keeping, and therefore be likely to succeed. We note with pleasure that some of the brightest lights in apiculture have been clergymen. They have done as much to advance the art as any other class of men, not excepting specialists. Some of the best bee-keepers of to-day are ministers, lawyers, doctors and teachers.

But why multiply examples to prove the harmony existing between the various rural pursuits? After all, it depends upon the *man*, whether he shall devote himself to this or that, whether he shall combine two or more, or whether he shall, in sleepful inactivity, allow all the grand opportunities for culture and profit to pass by unobserved or unheeded.

EUGENE SECOR.

After the reading of the essay the discussion was as follows:

James Heddon—What other business has Mr. Secor?

Eugene Secor—I am a real estate agent.

James Heddon—The reason I asked is, because he is a favorite poet of mine, and I feel an interest in him. He speaks of mental culture; how acquaintance with different pursuits broadens one's ideas, and he is correct; but it does not necessarily follow that, to secure breadth of culture, a man must follow different pursuits for the sake of making money; he may follow one pursuit for a living, and others simply for recreation.

A. I. Root—In poor seasons, like the past, it seems to me that something besides bees would be an advantage; don't have all the eggs in one basket.

H. R. Boardman—The best thing I ever found to go with bee-keeping is *bee-keeping.*

A. J. Cook—Some of our best bee-keepers conduct other business. We need bees all over the country, and I think it wrong to discourage small bee-keepers.

James Heddon—Mr. Root spoke of the foolishness of "having all the eggs in one basket." I am what might be called a specialist. Now let me tell what the past poor season did for me. I had 20,000 pounds of honey on my hands that I had kept over, and prices went up, and up, and it enabled me to clean it all out at a good price. Then again, if we lose money by "having all our eggs in one basket" in a poor season, how about the greater profits during the good seasons? Taking one year with another, the advantages are all with specialty.

N. N. Betsinger—We can never develop when our attention is called away by side-issues; as we attempt to rise in one kind of business, the other pulls us down.

Prof. Cook—I think we should try to so manage that the labor with our bees will be least during the busiest time of farm work, and *vice versa.*

James Heddon—That is the very thing that myself and students have given the most thought and study—how to secure the most honey with the least labor; how to have hives, fixtures, honey-house, grounds, etc., so arranged that we can "cut corners."

President Miller asked how many present were bee keeping specialists. In response, 25 stood up.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSON.

The convention was called to order by President Miller at 1:30 p. m.

A vote of thanks was extended to the proprietor of the Cammercial Hotel, for his uniform courtesy, good attendance, reduced rates, and for the free use of a room for holding the convention.

The President, Dr Miller, then said —I hereby appoint as the additional member of the committee to secure government statistics, Thomas G. Newman, Chicago, Ills. I did not want to appoint him because of his position as editor; also on account of his health; but the interests of the bee-keeping fraternity must be considered first.

Mr. R. L. Taylor, of Lapeer, Mich., then read an essay upon,

Wintering Bees in the Northern States.

The only thing necessary to bees in order to secure their perfect wintering, can be expressed in one word—comfort. In a climate warmer than that which reigns during winter in our Northern States, much dependence can be placed upon frequent flight to secure that happy condition, but in this latitude such flights can no longer be safely relied upon to furnish immunity from the causes of uneasiness and disease.

The catalogue of things liable to produce discomfort among the bees might be almost indefinitely extended, but after eliminating everything that seems to me of little importance, I find it is contracted to six items, viz: 1. Untimely manipulation. 2. Moisture. 3. Improper ventilation. 4. Improper temperature. 5. Scattered or scant stores. 6. Improper food. I shall touch upon these points in the order of their arrangement, not in the order of their importance:

1. It is evident that any manipulation after the season when the bees begin to assume the semi-torpid state, tends to dissipate that disposition, and is also liable to leave crevices between the hive and its cover, which, made earlier in the season, would be closed by the bees, but being left open, will often cause an injurious circulation of air through the hive.

2. When moisture invades the cluster in such amounts that the bees are unable to expel it by their natural warmth, they are compelled to arouse themselves from their slumbers and to attempt to rid themselves of the moisture by gathering it into their stomachs. Besides other evident evils resulting, the bees will gather with the water more or less of the impurities which will go to help load their intestines; and no doubt the excessive amount of moisture taken up will have a greater or less tendency to impair digestion.

3. As to ventilation, I fear that too much rather than too little, *i. e.*, I fear a draught much more than the want of any change of air at all. A cold draught causes discomfort to most kinds of animate nature, but I have seen no indication that for breathing purposes the bees get too little change of air by any of the ordinary methods of wintering. Out-of-doors I give a full hive-entrance; in-doors I remove the bottom-board entirely, not for ventilation proper, but that the bees may the more readily expel moisture.

4. On account of the facts which I shall mention below, I do not attach a great importance to a nice adjustment of temperature. An improper temperature is to be dreaded, chiefly on account of the increased consumption of stores thereby induced, and the consequent increased accumulation of fecal matter in case the stores are impure. For these reasons, viz: the saving of stores and the lessened risk of disease, I hold that it pays in this climate to winter bees in the cellar. I cannot find any grounds for choice between 35° Fahr., and any of the intervening points up to 50°. I do not find a high temperature an antidote to poor stores.

5. Scant stores cause the bees anxiety, and scattered stores, activity; and the two together make place for all the other untoward consequences that I have mentioned. But we all agree here.

All the above-mentioned conditions cause discomfort in the way and for the reasons intimated, and I mention them not because I think them ordinarily fatal, or even in themselves greatly injurious, but because they cause undue exertion and consumption of food with a result more or less detrimental, owing to the quality of the food. If successful wintering turned on any or all of these, the problem would have been solved long ago. There is no such uncertainty attached to the securing of the conditions desired in these things, as to make their operation long a matter of doubt.

No, brethren, the thing that causes uncertainty in results, is the uncertainty existing as to the quality of the winter stores, which brings me to the sixth and last item to be considered:

From my experience of ten years with an apiary ranging in numbers from 2 colonies at the beginning to 500 colonies now, I am forced to the conclusion that the great cause of our wintering troubles is a poor quality of stores. Some apiaries are, no doubt, placed where the natural stores obtained are always of a quality to be relied upon, but mine, I have no doubt, are not thus fortunate. The reasons for my conclusion, that improper food is the prime cause of our winter losses, I draw from the following facts, which are within my own experience and knowledge:

In the autumn of 1879 I had 15 colonies, and as that was a year of great scarcity I fed each colony largely of sugar syrup, and wintered them on the summer stands. In the spring a pint cup would have held all the dead bees from all the colonies.

Having purchased a few colonies in the spring of 1880, I began the disastrous winter of 1880-81 with 60 colonies; to 30 of these I fed a limited amount of sugar syrup, and of these 16 survived; of the 30 colonies not fed, 3 survived.

For the present I pass over the next three winters, to the still more disastrous winter of 1884-85, only saying that during the fall of 1883, as an experiment, I supplied a few colonies with sugar stores, and those thus prepared wintered so much better than those having honey stores, that in the autumn of 1884 I gave all my 200 colonies empty combs, and fed them syrup. The result was, that while all the other bees with but few exceptions in that part of Michigan perished, there was not a colony of mine in a normal condition, but so far as I could judge, wintered perfectly. These bees were wintered in a cellar.

During the following winter my loss was about 12 per cent. of bees, managed in every way precisely the same, except that their stores were partly honey and partly syrup, and this though the winter was much more favorable for the successful wintering of bees.

During the next winter, that of 1886-87, I had in two cellars at home nearly 400 colonies. Of these about two-thirds had honey stores exclusively, but the other third being in single sections of the new Heddon hive, were almost destitute of honey, and consequently were supplied with stores of sugar syrup. Each kind was divided between the two cellars. The temperature of one cellar was kept at 50° Fahr., almost without variation, while that of the other varied from 35° to 45°, but this difference in the temperature seemed to have little effect on the condition of the bees—if there was any difference it was in favor of the lower temperature.

But what a marked difference was there in each cellar, between the colonies with sugar stores and those with natural stores! Of the former the bees were the picture of comfort and contentment, quiet, closely clustered, not easily disturbed, not a diarrhetic sign, and only now and then a dead bee dropping out of the cluster. Of the latter the bees were uneasy, not closely clustered, easily disturbed, dying by the thousand, and many of the hives bearing the unmistakable signs of disease, and, as I have said, if there was any difference, those in the cellar with the rather high, even temperature suffered the more.

One fact more: During the three winters from 1881 to 1884, which I have mentioned above, I wintered my bees in the same cellar on natural stores, under precisely the same external conditions, so far as it was possible for me to judge; yet the first winter they wintered perfectly, while the other two winters they wintered illy, and with considerable loss. I cannot account for this, unless there was a difference in the stores.

Outside of my own experience there is one thing I do not fail to remember, and that is, that there is little agreement. and apparently little prospect of agreement, among bee-keepers, as to the necessity or the methods of securing ventilation, a high temperature, a dry atmosphere, late brood rearing, or even as to the necessity of cellar wintering; but they are in practical accord in affirming the necessity of supplying bees for winter with stores of a good quality. This is a significant fact. Stick a pin here, and bend a hook on the point of it.

And again, why is it that bees in the cellar suffer most severely during winters when they suffer most out-of-doors?

Without stating my deductions at length, let me only say in conclusion that I have found among my own bees, that colonies with plenty of good stores, known to be such, always winter well, while those with stores of a doubtful character winter more or less disastrously.

I am satisfied that I cannot winter a colony well on stores that are decidedly poor in quality, by any method with which I am acquainted. Who can inform me how to do it? I am confident that I can winter any fair colony well, on stores which are certainly good, by any of the approved methods. Who doubts his ability to do the same?

Of course it is not to be denied that a low temperature, moisture, etc., seriously aggravate the ill effects of poor stores, but I seriously question whether, unless present in an extraordinary degree, they would seriously affect the welfare of a colony well supplied with pure stores.

R. L. TAYLOR.

After the reading of the foregoing essay it was discussed as follows:

N. N. Betsinger—If sugar is better for bees, why is it not better for human beings?

Jas. Heddon—Because bees gather honey is no reason why it is the best winter food for them. Honey contains nitrogenous matter, and is well adapted to brood-rearing and supplying the waste of muscular tissue; but for this same reason it is not so suitable for a winter food.

N. N. Betsinger—I agree with Mr. Heddon, that sugar is a better winter food for bees than is honey; but the public does not understand the reason why. It reasons that if sugar is better for bees, it is better for human beings. Even though sugar is better, the public ought not to be told of it, because they draw a wrong inference.

N. W. McLain—We ought not to pay so much attention to what the public thinks, but rather to what is best for the bees. We all know that bees are not natives of a northern climate, and when we bring them here we may be obliged to make changes in their food; and to say all this must be explained to the public is foolish; that is *our business*.

Mr. McLain then gave an interesting account of his practical accomplishments and experiments in scientific bee-keeping during the past year, referring to the interest displayed by the United States Department of Agriculture in the valuable and rapidly increasing industry of bee-keeping and the honey product.

The essay of Mr. D. A. Jones, Beeton, Ont., is as follows, and is on

Establishing Out Apiaries.

This is the question that has been assigned me by the Secretary, and it is one which is receiving considerable attention just now, as many engaged in appiculture are increasing their colonies until they have, frequently, more than they can afford to keep in one apiary. Then the questions arise, what should they do? Should they sell them off, or start "out apiaries?"

There are some localities where 500 colonies might be kept with success, and there are others where 100 would overstock them. I consider from 100 to 200 colonies as many as is profitable to keep in the average apiary. In establishing out apiaries 50 colonies would make a start, but I would recommend 100, as no more trouble need be taken to manipulate them. These would contain 200 colonies in the fall, which might be divided again; thus your apiaries, if you double your colonies, would double every year. But counting mishaps, sales and losses, perhaps we might more reasonably expect to double our colonies every two years. This, of course, depends largely upon the practice of the apiarist. One man is required at each out apiary during the season, which, in this country, varies from four to five months.

From my home apiary, I located one about 1½ miles to the northwest; the next about four miles to the northeast; next, seven miles to the northeast; then one five miles north, one six miles northwest, and one ten miles northwest, with sometimes smaller ones between. From personal experience I am satisfied that in good localities from two to three miles apart is far enough to have them. I have had as good results from the closest apiaries, as from those furthest apart, and that, too, when there were over 200 colonies in each.

If the locality were suitable, I should prefer to place them so that I could visit all the apiaries by driving the shortest possible distance, that is, five or six apiaries might be placed around a central one, or in a way that one could drive or take them all in in one route. Mine, unfortunately, are not so placed, and it gives me five or ten miles of an extra drive to take them all in, but as the locations suited me better, I thought it would more than over-balance the extra cost of the journey to place them as I did.

Each apiary should have a practical man or woman in charge. I have frequently had students look after them, but it pays much better to have assistants with at least one year's experience, as the foreman cannot manage to go around to each apiary more than once per week, and sometimes scarcely that, especially if he has to give a day to each apiary, to instruct the one in charge. The assistant in charge has spare time enough on his hands to keep the yard in nice condition, besides preparing sections, putting them on, keeping the hives painted, and making new ones when required. I never expect him to do all the work during the honey-flow, but give him assistance in extracting. The more assistance that is required for this purpose, the better the apiary pays.

When extracting I use little boys and girls for carrying the combs to and from the hives to the extractor. Two of them, a little larger and a little practiced, do the uncapping and extracting. I have also had boys from ten to twelve years old that could put the combs back in the hives very well after they had been extracted. This class of labor, with us, is very cheap, and there is generally plenty of it in the neighborhood of every apiary, that can be got when required, and the youngsters think it as good as a holiday to get an opportunity to work in the bee-yard.

With a good, practical foreman to visit the yards, and see after them, as much can be realized from the "out apiaries" as from the "home" ones. Very often they bring in better returns, because they are selected on account of their fitness, while the home apiary may only be tolerated because of its being your "home," rather than the most favorable place for an apiary. Almost any number of apiaries may be managed in this way if the owner is thoroughly practical, and will devote his entire attention to the business, or if a good, reliable foreman and trusty students can be secured, or better, those who have had, say a year's experience.

I am satisfied that after one has mastered the business, and understands it thoroughly, if his surroundings are suitable, he is only fooling away his time with one apiary, as he can manage several without any more trouble than is required to manage one. He would require a suitable rig, so that in driving to each apiary he could take such supplies as he might require, and in returning could bring any honey that there might be on hand.

I have parties offering me the privilege of establishing apiaries on their premises without any charge. One man, where I had an apiary for over ten years, sold his place and moved away. He has asked me to come and establish one on his new place, free of charge, knowing as he does the benefit that the clovers, fruit trees and vines receive from the fertilization of the flowers by the bees. The highest that I have ever paid is $25 a year for bee-houses or a cellar to winter in. All the ground that is required is a quarter to a half-acre to place the bees on. From $5 to $10 a year is the usual rent, where a charge is made at all.

Even though a person has a sale for all the extra colonies of bees he can spare, it will pay him to have at least one or two out apiaries, because if increase is the principal object, the sale of bees will doubly repay the interest on capital invested. Any honey that they may stow away more than is required, can either be extracted, or the filled combs may be kept for future use, as it is desirable to have some such combs on hand to save feeding colonies that are run more exclusively for honey. I believe that all such apiaries should be managed for both honey and increase, unless the sale of bees is almost impossible at a very low figure, in which case increase is a thing not so much to be desired. D. A. JONES.

The committee on exhibits reported that the following articles were on exhibition:

Honey cans and labels, and malleable-iron honey-gates for honey-extractors, exhibited by E. L. Goold & Co., Brantford, Ont.

Samples of linden honey and clover honey—R. F. Holtermann, Brantford, Ont.

Reversible hive and section-case; and a machine for making T-tins—E.S. Armstrong, Jerseyville, Ills.

Adjustable division-board fixture for shipping bees, and a device for feeding and packing bees—J. B. Hains, Bedford, O.

Comb honey—Edwin Hubbard, Oil City, Wis.

Comb honey and extra funnel for bee-smoker—T. S. Bull, Valparaiso, Ind.

Samples of bee-supplies—Berlin Fruit-Box Company, Berlin Heights, O.

Machine for folding sections—Wakeman & Crocker, Lockport, N. Y.

Melissa honey-plant—A. C. Tyrrel, Madison, Nebr.

Super for surplus honey—H. W. Funk, Bloomington, Ills.

Crate of comb honey in patent paper boxes; samples of the patent paper boxes, and samples of sections with foundation—N. N. Betsinger, Marcellus, N. Y.

Samples of honey and honey-plants, and a photograph of the honey exhibit at the Tri-State Fair at Toledo, O.—Dr. A. B. Mason, Auburndale, O.

Seed of the Chapman honey-plant, and a sample of honey from the same plant—H. Chapman, Versailles, N. Y.

Reversible hive—James Heddon, Dowagiac, Mich.

Samples of comb and extracted honey, and an improved section-case—Joshua Bull, Seymour, Wis.

On motion of Dr. A. B. Mason, it was voted that the thanks of this Society are due, and are hereby tendered to the Commissioner of Agriculture for his efforts in behalf of the bee-keeping industry, and for establishing an Apicultural Station near this city for experimental work.

The convention then adjourned to meet at Toledo, O., at the call of the executive committee next year.

W. Z. HUTCHINSON, *Sec.*

For the American Bee Journal.

Apicultural Reports, Moving Bees, etc.

E. J. CRONKLETON.

I consider yearly reports of those engaged in the production of honey and the management of bees, both interesting and useful to all concerned, so I will report the results of my work for 1887:

Last spring I commenced work with 32 strong colonies. Every thing looked promising, and the bees bred up well during April and May; but in May we lacked our usual rain. June came, and the drouth began on June 10, but white clover yielded scarcely enough to keep up breeding to June 25. With the increase I have 45 colonies. I moved 39 colonies 3 miles to a basswood forest, and I left 6 colonies at home in town. At that time I do not think that there was any colony that had 2 pounds of honey. I only expected to get the brood-chambers well-filled for winter, but in a few days that was realized, and I put on the section-cases. The flow lasted about 12 days, and I took in 1,600 one-pound sections of as nice honey as I ever expect to see. The fall honey-flow did not result in any surplus honey.

That none may be deceived in the matter of moving bees, let me say that the 6 colonies that I left at home, were left for the reason that I did not want to make the third trip or load. I presume they were about average colonies. They all gathered more per colony than any in the grove. One of the 6 colonies gathered 106 pounds of comb honey. One colony cast a swarm on the day that I moved them to the grove; it gathered 76 pounds of comb honey, and I carried it 3 miles from the same grove. This solves the "long and short haul." I never will move bees again.

I finally came out of the past remarkably poor season with a short crop, and lots of robbing and disaster, generally (that usually does not belong to the business), and with 42 colonies, which I put into the cellar on Nov. 18, all in fine condition. I am usually very successful in wintering bees, and last spring they came out strong, clean and nice, with no spring dwindling.

My crop of honey is all sold for cash at 20 cents per pound. I hope that the bees will pass through the coming winter safely, and that 1888 has something good in store for us all.

Dunlap,⊸ Iowa, Nov. 26, 1887.

For the American Bee Journal.

Legislation for Bee-Keepers.

DR. C. C. MILLER.

And now it's the good old AMERICAN BEE JOURNAL that misinterprets my legislation views. Well, I'm used to it. I know there's no malice in it, so I don't lose any flesh over it, but it's funny how every one who tackles the legislation business gets something about it askew.

Now here's the "old reliable," page 755, talking about my advocating legislation for "specialists" "by payment of a license fee." Now did I ever ask anything for "specialists" as against others? Did I ever advocate a "license fee?" Didn't I rather leave the whole subject open as to particular kind of legislation? Didn't I always compare bee-keepers with farmers, and isn't the farmer protected in his territory whether he has one acre or a thousand?

You see I only put these things in question form, for I am getting so mixed up by the various things I am said to have said, that if any one should say I had tried to bribe the legislature to pass a special law giving me exclusive control to raise, sell, and eat all the honey between Marengo and the middle of Lake Michigan, I would hardly feel safe to say anything more than to ask, "Did I?"

In spite of the Waterloo defeat, just let me whisper in your ear, Bro. Newman, that legislation *is* desirable, and sometime it may be feasible. There were more who favored it at Chicago than a year before, at least there were some who had changed their views from opposing to favoring, and Prof. Cook, although not "on speaking terms" with me regarding legislation, threw out one straw for me to grasp before drowning, by saying (and not one opposed his view) that the man who owns a piece of land doesn't own the nectar secreted on it.

I commend to those locating conventions hereafter, the plan (thanks to the forethought of Mr. Newman) which was adopted in the late convention at Chicago, of holding the sessions in the hotel which was headquarters for bee-keepers. It was exceedingly pleasant and convenient.

P. S.—Bro. Newman, may be you'll say I'm not fair to say anything about legislation after promising to keep quiet, but all I have to say is, "You begun it."

Marengo,♁ Ill.

[Well, well; that fairly takes our breath, Bro. Miller. If we did not fairly state the matter it was because we did not grasp the true idea. Certainly we thought we did do so, but we accept the Doctor's statement of the case, for if he cannot give the *intent* of the discussion, no other living being can do so.

When we made this statement: "Dr. Miller is evidently far in advance of the times, and will have to wait until public opinion catches up with him on that subject," we certainly did not intend to say that it was not desirable, for we are inclined to the opposite—only we do *not yet* see how it can be successfully accomplished. We are waiting for "further light" on the *modus operandi*—when that difficulty is surmounted, count on us for generous support of the theory.—ED.]

For the American Bee Journal.

Experience with Bees, Feeding, etc.

J. B. DUNLAP.

I bought a colony of bees in December, 1886, and one last March, and I now have 7, and one swarm went to the woods. I got 100 pounds of comb honey; the first swarm issued on June 4, the last one on Sept. 2; of course the latter is light. I gave it two frames of brood and honey to start on, and it has done quite well for being so late. My next latest swarm issued on Aug. 22, and it filled the hive nicely. They are Italian-hybrids in movable-frame hives, eight frames to the hive.

When I bought the colony last spring I was given some copies of the BEE JOURNAL, and after reading them I decided to subscribe for it, and it was a good investment, I assure you; for one of my colonies, after filling its hive, lost the queen, and I did not know it until after they were reduced quite low. I sent a description of it to Mr. W. Z. Hutchinson, whose name I saw in the BEE JOURNAL, and he sent me a queen, telling me to give it a couple of frames of brood. I did so, and introduced the queen, and in three days afterwards I saw her laying, and now I have a good colony, which would have been lost if it had not been for the BEE JOURNAL.

I have put all of my bees into the cellar, and they are well supplied with sealed honey, except the one that came out on Sept. 2, and it has considerable, but not what I would like it to have.

I read in the BEE JOURNAL how to make a cheap bee-feeder with two pieces of tin bent into two hoops, fitting one in the other, then putting a piece of muslin over one, and shoving the other down into it; and then to pour in syrup made of granulated sugar. I did so, and it worked nicely with my young colony. 1. Will it do to feed them in the cellar? 2. If there comes nice warm days, as there often does here, will it do to put them out on the summer stands and feed them, returning them to the cellar at night? I put a block one inch thick under each corner of the hive, thus raising it one inch all around, and tacked on wire cloth, for ventilation for them. 3. Will it be sufficient for them?

Rochester,♂ Ind., Nov, 19, 1887.

[1. Yes; you can feed them in the cellar in the same way.

2. When necessary, the hives of bees may be put on the summer stands on any warm day, and the bees can have a cleansing flight. Put them back into the cellar at night. Feed them in the cellar.

3. That will be quite sufficient; in fact, many prefer not to give them as much as that.—ED.]

For the American Bee Journal.

Bee-Keeping and Gardening, etc.

JOHN BOERSTLER.

As some people think that they cannot do anything else when they have bees to look after, I will tell how I manage: I had one acre in strawberries this season, with only a 14-year-old boy to help me pick the berries, and as I have no team, I have a wheelbarrow, on which I wheeled the strawberries 1¼ miles to the landing, and the empty crates back. I have cleared about $125 this year above all expenses, and have lost about $25 by not having crates and boxes in time. I wonder what Dr. Miller will say when he reads this. That is worth the feeding of a few chickens, but I did it, and will do it again if I keep my health, and I am now 59 years old!

The following is my report for 1887: I bought 2 colonies of bees for $12; Italian queens, $4; bee-hives, sections, and other bee-fixtures, $11; total, $27. The results were: Three new colonies, $30; two new empty bee-hives left, $3; sold in honey in old comb, at 15 cents per pound, $4; honey in one-pound sections at 20 cents per pound, $4; total, $41.

Vashon,⊶ Wash. T., Nov. 14, 1887.

Local Convention Directory.

1887. *Time and place of Meeting.*

Dec. 7-8.—Michigan State, at East Saginaw, Mich.
H. D. Cutting, Sec., Clinton, Mich.

Dec. 15.—Southeastern Michigan, at Adrian, Mich.
A. M. Gander, Sec., Adrian, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM
OUR LETTER BOX

Value of a Bee-Paper, etc.—S. M. Cox, Alvarado,♂ Ind., on Nov. 29, 1887, writes:

I cannot very well get along without the BEE JOURNAL. I get more for my honey than those who take no bee-paper, thanks to the market reports. This has been a very poor season here for bees. I started with 47 colonies last spring, secured about 900 pounds of honey, mostly comb honey; and I increased my apiary to 100 colonies. I sold 5 colonies, had a few robbed, doubled up several colonies, and I now have 77 colonies left. Some of them are rather light in stores; some are packed in clover chaff, and the rest are in double-walled hives. I look for a better season next year.

Death.—Miss Edna Jacobus, North Urbana, N. Y., on Nov. 30,1887, sends the following notice of her father's death:

John Jacobus died of heart trouble, on Nov. 25, 1887, at the age of 67 years. He had been a member of the National Bee-Keepers' Union for about 18 months, had taken the AMERICAN BEE JOURNAL two years, and had always been deeply interested in bee-culture; but had taken more interest in bees since he joined the Bee-Keepers' Union, than he ever did before. We have at present 65 colonies of bees.

Bees in Winter Quarters, etc.—F. A. Gibson, Racine,⊶ Wis., on Nov. 29, 1887, says:

I have 80 colonies of bees in winter quarters, and all are doing nicely. They have plenty of honey to live on. I have taken one ton of extracted honey, and 300 pounds of comb honey from them. They gathered it all from sweet and Alsike clover. My extracted honey brings 15 cents per pound, and the comb honey 22 cents per pound. I took first and second premiums on bees and honey at the Racine County Fair.

Bees had a "Picnic," etc.—J. H. Howe, Mansfield,⊸ Mass., on Nov, 27, 1887, says:

I commenced the spring of 1887 with 8 colonies, increased them to 15, and one colony was robbed to death. I bought 3 colonies, and now have 17, which I shall try to winter. I have taken out 6 pounds of honey, and fed 230 pounds of sugar this fall. My bees have had a real "picnic" to-day. The temperature at noon was 68°, to-night it is 60° above zero.

The Season's Results.—Mr. C. A. Wright, Little Prairie Ronde,♀ Mich., on Nov. 23, 1887, writes:

I put 39 colonies into winter quarters on Nov. 17, 1886, 30 of them in the cellar, 8 packed in chaff in a clamp out-doors, and 1 in a double-walled chaff hive. All were in good condition except two that were light. I brought out 38 about April 1, 1887, losing one out of those that I put into the cellar. I moved my bees 2½ miles on April 19. I have sold 2 colonies, lost 1 by its being robbed, and 1 by spring dwindling. I increased them to 72 colonies by natural swarming, and lost 5 by robbing during the extreme dry weather in July and August. I have 69 colonies now, 62 strong ones, and 5 light in bees and stores. I paid $58.25 for hives and supplies, and have taken about 200 pounds of comb honey in one-pound sections—enough for my own use. There was not much money in it this year.

The Season in Tennessee.—J. H. Higgins, Victoria,⊸ Tenn., on Nov. 28, 1887, writes:

My bees are doing very well now. They brought in their last pollen on Nov, 18, from a shrub on the creek. Owing to the drouth, my bees did not do very well this season, as I got only about 30 pounds of comb honey per colony; the rest I got in reading the BEE JOURNAL, as a school fund, which I hope to continue while I keep bees. My bees are all Italians except one colony, which is a hybrid. I use a hive of two stories, and tapered, 9 frames below and 10 above, to hold 60 one-pound sections in the top story. To-day we have an indication of approaching winter from the north-west. There is ice ¾ of an inch on the ponds, which is uncommon for this time of the year in this locality.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

HISTORY OF THE UNITED STATES—from 432 to 1887.—320 pages.—Price, $2.00.

HISTORY OF ENGLAND—from before the Christian era to 1887.—Price, $2.00.

EVERYBODY'S BOOK—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 45
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 80
Canadian Bee Journal	2 00	1 80
The 6 above-named papers	5 00	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75

One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the AMERICAN BEE JOURNAL. Subscribe *now*, and get the rest of the numbers of this year **free.** The sooner you subscribe the more you will receive for your money.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@16c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.

BEESWAX.—22@23c.

Nov. 8. S. T. FISH & CO., 189 S. Water St,

CHICAGO.

HONEY.—Prices range from 18@20c. for best grades, with light demand ; 2-lb. sections, 15@16c. Extracted in good demand at 7@10c. Offerings of comb honey are large, and the receipts have been heavy during this month.

BEESWAX.—22@23c. R. A. BURNETT,
Nov. 23. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections, 17@19c. Extracted, 9@10c. Demand fair.

BEESWAX.—21@23c.

Nov. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.: 2-lbs., 17@18c. White clover extracted, 8c.

BEESWAX.—25c.

Oct. 24. A. C. KENDEL, 115 Ontario St.

SAN FRANCISCO.

HONEY.—We quote : Extra white 1-lbs., 17@18c.; 2-lbs., 16c.; amber 1-lbs., 13@15c.: 2-lbs., 12@14c.—Extracted, white and choice, 7½@8c.: light amber, 7@7½c.: amber, 7c. Supplies becoming reduced.

BEESWAX.—22c.

Nov. 19. SCHACHT & LEMCKE, 122-124 Davis St.

SAN FRANCISCO.

HONEY.—We quote : White to extra white comb 16@18c. amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.

BEESWAX.—19@22c.

Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c., Southern, per gallon, 60@70 cts.—Market seems to be unsettled.

BEESWAX.—22@23c.

McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@18c.; dark 2-lbs., 15@16c.; choice white 1-lbs., 20@22c.; dark 1-lbs., 15@17c. White extracted, 6½@7c.; dark, 5@6c. Demand good, but light supply.

BEESWAX.—21 to 22c.

Nov. 23. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lbs., 20c.; dark, 15@18c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.: white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.

BEESWAX.—No. 1, 22c.; No. 2, 18c.

Oct. 6. CLEMONS, CLOON & CO., cor 4th & Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.

BEESWAX.—20½c. for prime.

Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI

HONEY.—We quote extracted at 3½@8c. per lb Choice comb, 18@20c., in the jobbing way. The demand is fair for honey of all kinds, and keeps pace with arrivals.

BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.

Nov. 10. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, 17@19c.; fancy 2-lbs., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10 to 11c. Extracted, white, 9@10c.; buckwheat, 6 to 7c. Market firm.

Nov. 22. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs. 18@20c.; fair 1-lbs. 18c.: fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.

BEESWAX.—24@25c.

Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 6½@7c. Demand good.

BEESWAX.—22@25c.

Oct. 28. A. V. BISHOP, 142 W. Water St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. The market is not very brisk.

BEESWAX.—25 cts. per lb.

Nov. 21. BLAKE & RIPLEY, 57 Chatham Street.

New Subscribers can obtain the full numbers for 1887 and 1888 for $1.80, as long as we have any sets of 1887 left. There are only a few, and to get them an early application will be necessary.

Advertisements.

WANTED.—WORK, by a Bee-Man who understands the business.
FRANK CURL,
47Atf (Lock Box 62), East St. Louis, Ills.

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt Vernon, Linn Co., Iowa.

Dadant's Foundation Factory, wholesale and retail. See advertisement in another column.

WANTED,
EXTRACTED HONEY & BEESWAX.

ANY ONE having the above to consign or sell, will find it to his interest to correspond with us. We handle all kinds of produce and make liberal advances on "bill of lading." Address, **S. T. FISH & CO.,**
189 South Water St., CHICAGO, ILLS.
38A13t

NOTICE.

BEE-HIVES and SUPPLIES,

SECTIONS, Tin Cases and Shipping-Crates, Bee-Smokers and Metal Corners, Honey-Extractors and Honey-Knives.
☞ Send for Price-List.
B. J. MILLER & CO.,
49D4t NAPPANEE, INDIANA.

BARNES' FOOT-POWER MACHINERY.

Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 484 Ruby St., Rockford, Ill.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

SUPPLY DEALERS

AND OTHERS should write to me for SPECIAL PRICES on **BEE-SUPPLIES** for this fall and winter.
☞ **A heavy Discount allowed.**
Address, A. F. STAUFFER,
44Ctf STERLING, ILLINOIS.

The Chapman Honey-Plant.

PRICE OF THE SEED:

4 Ounces	$1 00
10 "	2 00
1 Pound	3 00

Larger quantities by Express at Reduced Price. Sow very early in the spring or late in the fall. It vegetates in a low temperature. I have twelve acres that will bloom next spring. I shall sow two acres this fall. It is a success ! **H. CHAPMAN,**
44C4t VERSAILLES, N. Y

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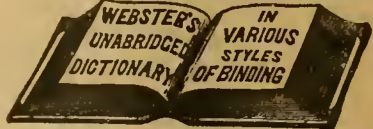
For Pastor, Parent, Teacher, Child, or Friend, both elegance and usefulness will be found combined in a copy of Webster's Unabridged.



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Friends, if you are in any way interested in

BEES OR HONEY

We will with pleasure send a sample copy of the **Semi-Monthly Gleanings in Bee-Culture,** with a descriptive price-list of the latest improvements in **Hives, Honey Extractors, Comb Foundation, Section Honey Boxes,** all books and journals, and everything pertaining to Bee Culture. *Nothing Patented.* Simply send your address *written plainly,* to

A. I. ROOT, Medina, Ohio.

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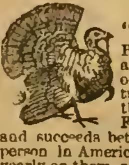


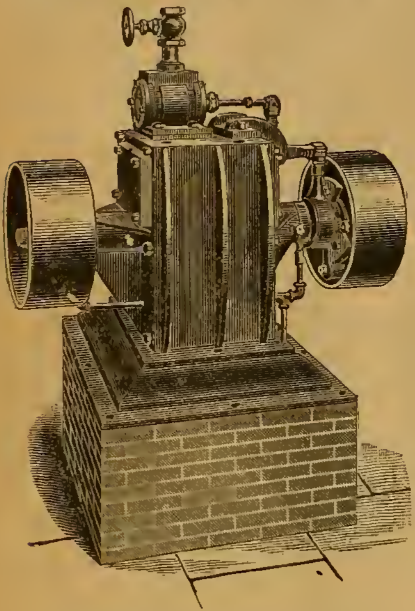
JUST PUBLISHED.
"PRACTICAL TURKEY RAISING"
By Fanny Field. This book tells all about turkey raising, from the setting of the eggs to the maturity of the young turks. If you follow the directions in this book you need not lose a bird. Fanny Field has had more experience and succeeds better in raising turkeys than any other person in America. She clears hundreds of dollars yearly on them, and will tell you how she does it. Price, 25 cents. Stamps taken. Address R. B. MITCHELL Publisher, 69 Dearborn St., Chicago, Ill.
9Ctf

A NEW ENGINE.

(Entirely New Invention.)

WONDERFUL DEVELOPMENT OF POWER AND SPEED!

GREAT ECONOMY OF FUEL



No high-priced Engineers are required. Any person can manage it. No angular push, or dead center. Friction almost entirely overcome. **It is the most compact Engine ever invented. It is perfectly governed.** We also warrant it to attain a **higher speed** and develop **more power** with **less fuel** than any Engine in use.

Manufactured at the Cedar Rapids High Speed Engine Works, of Cedar Rapids, Iowa.

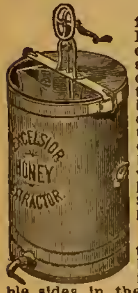
☞ Send for a Circular. Address,

HENRY RICKEL, Pres.,
44Atf CEDAR RAPIDS, IOWA.

Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column.

EXCELSIOR

HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches.....	...$8 00
For 2 Langstroth "	10x18	"	.... 8 00
For 3 " "	10x18	"	.........10 00
For 4 " "	10x18	"	.........14 00
For 2 frames of any size,	13x20	"	.........12 00
For 3 " "	13x20	'	.........12 00
For 4 " "	13x20	"	.........16 00

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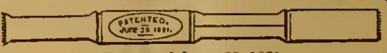

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AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Dec. 14, 1887. No. 50.

Their Chaste Salutes are not misplaced
When women kiss a friend or brother;
But of life's *honey* what a waste
There is, when women kiss each other.

"How to Produce Comb Honey" is the title of a new pamphlet of 12 pages, by George E. Hilton, of Fremont, Mich. The size of the pages are 4x6 inches, and the price 10 cents. It is the substance of an essay read at the joint meeting of the State Farmers' Institute, and Fremont Progressive Bee-Keepers' Association last February. It can be obtained at this office.

Every One Needs a Calendar for the New Year, and will appreciate the elegant one designed and engraved on steel for Messrs. Doliber, Goodale & Co., of Boston, Mass., who will mail it to any one upon receipt of ten cents in stamps or cash. It is one of Lovell's finest steel-plate engravings, and is by far the handsomest calendar which we have ever seen.

Only One Book of History with every club subscription to the AMERICAN BEE JOURNAL and New York *World*, is all that we can offer. The book is worth the whole money to be sent, and then you may consider the other two papers as a free gift.

Give Proper Credit.—Several bee-papers have copied the report of the Chicago convention from the AMERICAN BEE JOURNAL without giving any credit for it. As we paid the reporter for attending the sessions and writing out the proceedings, it is our private property, and any periodical which copies it should in common honesty, give the AMERICAN BEE JOURNAL proper credit for it. If it does not wish to do that, then let it send a reporter to the convention and get it in a legitimate way.

Colored Bee-Keeper.—It has often been said that but few bees were kept by colored men. The following item is from an exchange, and shows that one colored man, at least, is a proficient apiarist:

> The first premium for the best display of honey at the Alabama State Fair was awarded, jointly, to R. C. Bedford and Robert De Jernette. The latter being a Negro, the *Advertiser* speaks in high terms of him both as a skilled apiarist and an industrious and worthy citizen.

Mr. T. W. Cowan has arrived at his winter residence in Switzerland, and by a letter from him we learn that he had a very rough ocean passage, but arrived in safety, and that the journey was very beneficial to Mrs. Cowan's health. He speaks enthusiastically of the very kind reception he met among the apiarists of America. He intends to write a series of articles for his paper, the *British Bee Journal*, during the coming winter, concerning American apiculture, in which he promises to "do full justice to American bee-keepers."

Upon arriving at Horsham, his English residence, he found that a triumphal arch had been erected, made of bee-hives, evergreens, and flags, with the word WELCOME in large characters. There was general rejoicing among the people, that Mr. and Mrs. Cowan had returned in safety.

Knowing that his many friends in America will enjoy the reading of these particulars, we have given place to them, and congratulate our friends, Mr. and Mrs. Cowan, upon their reception "at home."

Prof. Wiley's Resignation is now called for, not only in Kansas but in New England, as will be seen by the following paragraph in the New England *Homestead*, a paper of wide influence, full of pluck and enterprise. It says:

> It is apparent that the resignation of Prof. H. W. Wiley, Chemist of the National Department of Agriculture, will be requested at the close of this season's work in the sorghum sugar experiments. Such a course will do much to clear the air about Commissioner Colman.

A man occupying such a position should have known enough to try to remedy the evil effects of the silly lies he invented about the "manufacture of combs out of paraffine, and filling them with glucose by machinery." But Prof. Wiley has never done anything to arrest the multitudinous repetition of the story in the papers of the World. Even when he is informed about the sad havoc it is playing, and its injury to the pursuit of bee-keeping, he simply laughs in his sleeve, and apparently "enjoys the *fun*." Such a man in the position of "National chemist" is a *National disgrace!*

An Enthusiastic Apiarist, and there are many thousands of them; indeed, it may be truthfully said that "the woods are full of them," wrote the following for one of our farm exchanges:

> An experienced apiarist declares that the modern improvements in bee-keeping, including the movable comb-hive, the honey extractor, comb foundation, and the safe methods of wintering, make bee-keeping a pursuit which may be indefinitely developed. Indeed, it may be so followed that, from its wide diffusion over our country, and from the value of its products, it may be truly called a great National industry.

This is how a Label for extracted honey reads from a Rhode Island apiary:

> Pure Honey—Extracted (thrown from the Comb by Machinery). Warranted gathered by my bees from the Natural Sources.—Samuel Cushman, Pawtucket, R. I.

Mr. Cushman has done well. It establishes a reputation for pure honey to have a distinctive and attractive label. It is neat, concise, and reads enticingly.

The Langstroth Book.—Concerning the revision of this book and its publication next spring, Mr. M. M. Baldridge, of St. Charles, Ills., writes us as follows:

> The following extract from a letter from Dadant & Son, dated Nov. 30, received by the writer, may be of interest to all the readers of the bee-papers, and so unknown to them, I take the liberty of making it public, trusting no harm, but much good, will ensue in doing so:
>
> "The revised work of Father Langstroth will probably be ready by next spring, and, judging from the number of inquiring friends, we anticipate a ready sale for it. As soon as it is ready for the press, or rather, for sale, the readers of the bee-papers will be duly informed by extensive advertising. We have been delayed in the revision of the work by different causes, independent of our control, but we think we have now overcome all the obstacles, and that the balance of the work will soon be completed."
>
> The revision of Father Langstroth's book is certainly in the best of hands, and I sincerely hope that Messrs. Dadant will be able to give us the opportunity to peruse it by the time indicated.

We hope that this important book will be published soon, for so many are very anxious to possess a copy of the latest revision. As Messrs. Dadant & Son are making thorough work of it, we may all with patience await its advent.

Not Cincinnati.—Concerning the location of the next meeting of the North American Bee-Keepers' Society, Mr. C. F. Muth writes us as follows:

> I am sorry that Toledo was selected for the next place of meeting of the North American Bee Keepers' Society, and not Cincinnati. The great majority of our brethren will visit Cincinnati during the Centennial Exposition next summer and fall. There would be a chance for a grand meeting had Cincinnati been selected. The attraction of the Centennial, general reduction of fares for three or four months, free use of a nice hall, all combined should have been an inducement.

We should have preferred Cincinnati for the next meeting, but were not present when the vote was taken. We are sorry that Mr. Muth was not here to advocate the claims of Cincinnati.

Photographs of Bee-Keepers.—We have purchased a lot of the "medley" gotten up by E. O. Tuttle, containing the faces of 131 representative apiarists, and a photographical sketch of each one, and will send it and the BEE JOURNAL for one year for $1.75, or will present it free by mail to any one for a club of three subscribers and $3.

To Delinquents.—After Jan. 1, 1888, we shall discontinue sending the AMERICAN BEE JOURNAL to those who have not responded to the bills we sent out a few weeks ago. This does not mean that we shall try to *deprive* any one of the pleasure of reading the BEE JOURNAL who really desire its continuance, but find it difficult to pay now. Such can get a short extension of time by asking for it. We should be sorry to lose any subscriber who wishes to have its weekly visits continued, but do not want any to continue to take it who do not think they are getting the full worth of their money. We are contemplating many new features and improvements for next year, which we shall mention in detail in future.

QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Why Bees Eat off Foundation Starters.

Query 499.—Why do the bees eat off the comb-foundation starters in the sections?—Calif.

For lack of employment.—W. Z. HUTCHINSON.

To use the wax in some other spot.—DADANT & SON.

It comes either from mischievous idling, or from imperfect foundation.—JAMES HEDDON.

The foundation may be too thin, or the bees may have nothing else to do.—J. P. H. BROWN.

Perhaps because the foundation was very thin, and little or no honey to store.—C. C. MILLER.

I do not know, unless for the same reason that the bee went in the boy's ear.—H. D. CUTTING.

They do not with me, if they are getting honey. Perhaps it is to keep out of mischief, unless that is mischievous.—A. J. COOK.

Bees do not eat off the comb foundation starters when there is enough honey coming in to enable them to build comb. At other times they will.—G. L. TINKER.

Who can tell? When no honey is being gathered they do it out of pure meanness. Do they do it when gathering honey? In asking questions, full data should be given, if correct answers are expected.—J. E. POND.

Because "Satan finds some mischief still for idle hands to do." A good yield of honey causes them to add to the starters rather than eat them off.—G. M. DOOLITTLE.

Because they have nothing else to do. I never had them to nibble off and waste the foundation starters at a time when there was honey in the flowers. But they will use the wax to stop cracks with, mixing it with propolis, if given to them at a time when there is no honey in the flowers, or no flowers to secrete honey. I have found, however, that they will not waste the wax after they have begun to draw out the foundation starters, whether they are gathering honey or not.—G. W. DEMAREE.

Either they intend to use the wax elsewhere, or they are inclined to be mischievous. During a honey-flow they would work on the starters and rapidly increase their size, rather than destroy them.—THE EDITOR.

Making Foundation for 50 Colonies.

Query 500.—Will it pay to purchase a mill and make my own comb foundation for 50 to 100 colonies of bees?—Iowa.

I think not.—JAMES HEDDON.

It would be unprofitable for *me.*—W. Z. HUTCHINSON.

No, not if your time is worth anything to you.—J. P. H BROWN.

I use the Foster molds, and I think that pays. The cost is trifling, and one pound of wax can be worked as well as 50 pounds can be.—G. M. DOOLITTLE.

It all depends upon circumstances, and the person interested has much to do with it. Unless the circumstances are very favorable, it would be cheaper to buy the foundation for 50 colonies than to try to make it.—H. D. CUTTING.

I have always thought best to buy my foundation, even with 300 or 400 colonies; but if your time is unoccupied, it may be best to make your own foundation.—C. C. MILLER.

No, not when you can buy better foundation than you can make yourself, without making a great outlay for proper fixtures, at only a slight advance above the first cost of the wax.—G. L. TINKER.

It would not pay me. You must buy an outfit, and have a suitable room to operate in; you must work up wax that costs as much as anybody's wax does, and there is nothing left you but the margin between the price of the wax and the price of the foundation when finished. I know several persons who manufacture their own foundation on a small scale, and I have to see the first sheet of it that comes up to my idea of a first-class article. The large, well-furnished foundation factories turn out the best foundation.—G. W. DEMAREE.

It depends largely upon your locality. Ordinarily it would not for myself at present prices. If bee-keeping is the sole occupation, it would probably pay, as it could be made at times when there was nothing else that could be profitably done. The price of wax, however, would form an important factor even then.—J. E. POND.

To make comb foundation is a trade; to make as good an article as can be purchased, requires much experimenting, loss of time and material, and these, when added to the disagreeable work of its manufacture would outweigh every other consideration, and compel us not to manufacture it, when it can be purchased at a reasonable price.—THE EDITOR.

Convention Notices.

☞ The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ontaria, on Tuesday and Wednesday, Jan. 10 and 11, 1888.
W. COUSE, *Sec.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited.
H. M. SEELEY, *Sec.*

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ⚨ north of the center; ♀ south; ○→ east; ←○ west; and this ♂ northeast; ↖○ northwest; ○↘ southeast; and ⚲ southwest of the center of the State mentioned.

For the American Bee Journal.

Packing Bees for Winter.

J. A. BUCHANAN.

What is there in the idea of packing bees for winter? I have asked this question of a great many bee-keepers in this locality, and the answer is almost invariably, "Nothing at all." When a colony has been packed with several inches of dry chaff or other good material, we say, "Now the bees are in good condition to endure the coldest winter that may come." But, is this true? If you say "yes," I will ask, why it is that we see, after a terrible, long, cold winter, so many reports like the following? "I put a splendid apiary into winter quarters; the hives were thoroughly packed after the most approved manner, but there are only a few feeble colonies left to tell the story." And continuing the sad refrain, he says: "I have just purchased quite a number of strong colonies in box-hives, and will stock up again as fast as possible."

Now it seems to me that when I see such frequent reports like the above, it is "giving away" the packing system without reserve.

I have thought, to account for the many failures, bees were packed in this wise: A packs his bees in chaff hives with cushions all around the cluster; while B has his colonies in single-walled hives exposed alike to sunshine and rain. Winter begins with a grip of icy coldness, with no "let up" for three long months, when there comes a few brief hours of sunshine, with a fleeting, balmy breeze which react and revive the bees in the thin hives, and taking advantage of the opportune moment, they quickly sally forth for a cleansing flight, and are now in a condition to withstand another long, cold spell. But not so with the bees in the thick-walled hives. The sun has not shone long enough to react and revive them in time to bring them out at the proper time; and before another warm spell comes, so loaded with feces have they become, that every day a few leave the hives to relieve their overloaded intestines, which is fast producing disease and death.

Spring-time comes again, and the more lovely and joyous it is because of the severity of the winter that has preceded it; but there is no hum of peaceful content lingering near the entrances of A's chaff-packed hives, and only the sharp notes of plunder come from B's strong colonies in the single walled hives.

Show me a ten-frame Langstroth hive with one frame removed, that more bees may pack together in the ranges; plenty of good honey and plenty of September and October hatched bees; a honey-board or good quilt well waxed down; a good, roomy entrance kept open; a perfect water-tight roof, and in a place sheltered from the prevailing winds, and I will have no forebodings as to this colony coming through any winter, even if its only protection is a box made of ⅞-inch lumber.

Ordinarily there is a saving of stores where bees are warmly packed, but aside from this one advantage, no other presents itself to me. For many years I have kept from 75 to 100 colonies, half of them being in chaff hives with the usual paraphernalia of quilts, cushions, etc.

Again, I will admit that a weak colony can be brought through the winter when contracted to a small space and well packed, more successfully than it might if left in a large hive; but this amounts to nothing, from the fact that where the bees have been during the summer and fall, in a normal condition, and still go into winter in such poor condition as to require such careful nursing to keep them in existence, their kind should perish! It will not prove profitable to propagate this kind of stock. I believe in the doctrine of the "survival of the fittest," and the fittest only should be permitted to perpetuate the race.

Last April, an old gentleman stopped at my house to see if I would buy his bees. He had 15 colonies in box-hives. He said that they were "all livin'," but did not know anything about their condition, as he had become so afraid of them that he would not go near them any more. He offered them for $20, and being so low in price, I then paid him his price, and told him that I would haul them home in a few days. I found them in the most dilapidated old hives that I had ever seen bees inhabit. Part of them had to be bound together so that they would not fall apart on the way. The hives were so large that I got, in transferring, good worker comb enough from each to fill ten Langstroth frames, and there was enough drone-comb and pieces mostly full of honey to fill a barrel.

Nearly all the entrances of these hives were from 1 to 1½ inches deep, besides other openings where bees passed out; but such powerful colonies I had never seen in April. I could but view them with astonishment. Musingly I asked myself this question: Of what use is our modern system of contraction, and careful, expensive packing, if bees will winter in such splendid condition as they have in these old excuses for hives? What do we know?

The honey crop of this State for 1887 was almost a failure. From 90 strong colonies I got but 1,100 pounds of surplus honey. The fall flowers yielded well, which put our colonies in good condition as to bees and honey.

Holliday's Cove, ♂ W. Va.

For the American Bee Journal.

The Bee and the Butterfly.

GEORGE W. YORK.

One summer day in the month of June,
A bee was humming a merry tune,
And as it went from flower to flower
It gathered the drops of the "honey-shower."

Thus while it toiled very hard and long,
And still was singing that cheerful song,
A butterfly happened to pass that way,
In its life so aimless from day to day.

Then to the bee the butterfly said:
"Why do you slave so hard to get 'bread?'
I get my food, and then *I* have pleasure;
But *you* never seem to get *any* leisure."

"Yes," said the bee, "what you say is true.
I lead a life far nobler than you;
I get my food, and much for my keeper."
Then into the flower the bee went deeper.

Soon it returned from out that flower,
And kept up its hum for nearly an hour:
Seeing the butterfly still at her ease,
Again it began, and said: "If you please,

"He lives in vain who toils but for self—
Often 'tis found that he gains by pelf;
While he who works hard, unselfishly too,
Will live long in hearts that soon forget you.

"Thus do I live for those who love me,
And my work, though small, will always be
Honored by all who like to eat honey,
That freely I store, without price or money."

Chicago, Ills., Dec. 6, 1887.

For the American Bee Journal.

A Rip Van Winkle Bee-Keeper.

M. M. BALDRIDGE.

On Thanksgiving Day, one of my correspondents wrote me as follows:

"I met a man in La Crosse, Wis., this week, who had come from Minnesota with 2,000 pounds of white clover honey, and had sold it to a commission man there for 12½ cents per pound! I went with him and saw the honey. It was in the square one-pound sections, made of one-piece, and was still in the top stories, in wide frames two tiers deep, and all built between separators. None of the propolis had been removed! I took out some of the wide frames and found every section plump, nicely sealed, and full at the corners. All I saw was as white as snow. The next day this honey was picked up by a Milwaukee house at 21 cents per pound for the whole lot—the empty supers and wide frames to be returned. Some of the supers had neither top nor bottom, having been shipped in that way! The gross weight of each super was 75 pounds, and 20 pounds were allowed on each as tare."

Now, can it be possible that this Minnesota honey-producer *reads* a bee-paper? If not, it might possibly be money in his pocket to do so. It does seem strange that honey-producers will allow the commission man and retailer more net profit on comb honey than they get for themselves. But such is often the case. Reader, how is it in your case?

St. Charles, ♂ Ills.

For the American Bee Journal.

The Hardin Co., Iowa, Convention.

The Hardin County Bee-Keepers' Association met at the Court House in Eldora, Iowa, on Saturday, Nov. 26, 1887. The convention was called to order at 2 p.m., with President Ely in the chair.

After the regular business was transacted, reports were made as follows:

President Ely had 80 colonies in the spring of 1887, increased them to 125 colonies, and obtained 1,640 pounds of comb honey, and 390 pounds of extracted honey, being a trifle over 25 pounds per colony, spring count. His bees are well supplied with honey, except possibly 4 or 5 late swarms that are rather light, but he thinks that they have enough for winter. He winters a part of his bees on the summer stands, and a part in the cellar.

Mr. Lindley said—I had 45 colonies at the beginning of the season; increased them to 55 colonies, and took 500 pounds of comb honey, a little over 11 pounds per colony, spring count. I increased by dividing colonies, on the nucleus plan.

This was the signal for a lively discussion. President Ely, Mr. Hand, and the Secretary would let the bees swarm naturally. Mr. Smith would divide a colony that refused to work in the sections, and showed signs of swarming by hanging out. This was concurred in by nearly all.

Mr. Lindley winters his bees on the summer stands, and uses chaff hives.

Mr. Hand was all ready with 30 good colonies last spring, and with "his dish right side up" to catch the expected shower of honey. As the season advanced, and no signs of surplus, he was tempted to kick the dish over, and join the column of "blasted hopes." However, he allowed the "dish" to remain, and when basswood bloomed he "caught" 500 pounds of nice comb honey, an average of 16⅔ pounds per colony; and his bees are all well supplied with honey. He also Italianized his apiary, and increased it to 41 colonies. He winters his bees in a cave, and thinks that this part of Iowa is too cold to use chaff hives. He used them successfully in Ohio, but cannot succeed in Iowa.

Mr. Webster commenced the season with 12 colonies, increased them to 15, and 2 or 3 swarms went away. He took no surplus honey, was away most of the summer, and the bees were neglected. He winters his bees in the cellar.

Mr. Smith had 11 colonies in the spring, increased them to 21, and took 102 pounds of comb honey, a little over 9 pounds per colony. The surplus was all taken from 3 colonies, the rest doing nothing in the sections. He winters his bees in the cellar.

J. W. Buchanan began the season with 6 colonies, obtained 100 pounds of comb honey (an average of 16⅔ pounds per colony), and increased his apiary to 7 colonies. He caught 3 stray swarms, by putting hives up in trees, thus making 10 colonies in all.

The summed up reports are: Total number of colonies in the spring, 184; total number of pounds of honey taken, 3,232, being an average of a little over 17½ pounds per colony; and number of colonies in the fall, 267.

As the day was a stormy one, and only a few members present, it was decided to postpone the election of officers until the next meeting. The subject for discussion at the next meeting will be, "International organization of bee-keepers," and the writer was appointed to open the discussion.

After some discussion on various subjects, the convention adjourned to meet on Dec. 10, 1887, at the Court House in Eldora, Iowa.

J. W. BUCHANAN, *Sec.*

For the American Bee Journal.

Fastening Foundation in Sections.

ED. S. EDEN.

In reviewing the different methods employed to fasten foundation into section boxes, it seems strange that some one has not invented a machine to do the work satisfactorily. Since the invention of comb foundation, the bee-keeping fraternity have striven to surmount this difficulty, but with very little success. Of the many machines so far invented, not one of them has given general satisfaction. I think that this is because the inventors do not consider sufficiently the difficulties to be overcome. Some are guided solely by the strength of the work, regardless of speed and neatness; while others are guided by speed, regardless of neatness and strength. A machine to give general satisfaction, must not only be rapid in its work, but must do it sufficiently strong and neat.

If foundation is fastened by dipping it into a melted mixture, or by pouring wax along each side to adhere it to the section, it will be found that this destroys the guide or wall to the top row of cells, and the bees will not draw them out, unless they are short of room, leaving a very imperfectly-filled section. But if the foundation is fastened neatly, they will draw the top row out equally with the rest, leaving a section filled in a superior manner.

This plan of fastening foundation by pressure has also its drawbacks, as it is almost impossible to get them all to stick, and especially if the section is smooth; for the substance used in lubricating the dies while manufacturing foundation, prevents the foundation from sticking to the wood by pressure. Some have adopted the plan of heating the section, and then pressing the foundation on the warm section. This plan I have tried, but with very little success. The trouble I had was, that the warm section prevented the foundation from "setting" sufficiently quick, necessitating it to be left in the machine till it became sufficiently cool, before removing it; and even then some would break loose with the least little jar, making it very annoying.

It is doubtful whether the plan of fastening foundation by pressure will ever be developed sufficiently to give general satisfaction. There are so many conditions that are absolutely necessary, to procure the best results, such as temperature of the room, pliability of the foundation, warmth of the section, etc., before the work can be performed successfully. It is to be hoped that some one of the many thousand bee-keepers will discover a plan that will give general satisfaction. I have no doubt that such a person would receive the thanks of every bee-keeper in the country.

If the difficulty of fastening foundation in the sections was overcome, I believe that bee-keepers would turn their attention to the production of comb honey more than they now are doing.

Eastwood, Ont.

For the American Bee Journal.

Scientific Breeding of Queens.

G. W. DEMAREE.

Mr. G. M. Doolittle, the well-known writer on practical bee-keeping, in his article on page 740, again refers to scientific queen-rearing, which he speaks of as "artificial." Mr. D. has a right to his own views, and has a right to express them in his contributions to the bee-literature of the times, but he must expect to have his views on this subject criticized. Most of us demand more than mere assertion, and mere theory, when it comes to settling an important question like the one under consideration. To my mind, what Mr. D. has written in the article under consideration—in fact, in all his articles that I have seen on this subject—is based on mere mistaken *theory*, except so far as he brings his own *experience* as proof of the soundness of his position.

My experience is the opposite of his. I do not say that I would not breed from a queen because she was reared by a swarming colony if I could trace her parentage back to pure ancestry, but I will say that I have never had the good fortune to cross a single specimen thus reared that was equal to my finest queens bred by selection under my own care, and in the absence of a resisting, outraged mother-bee.

It will be observed that Mr. Doolittle bases his whole theory upon the *presence* of the mother-queen while the young queens are being nursed. On these grounds most thinkers would judge that the theory was against Mr. Doolittle. Some years ago, when studying the habits of bees under the swarming-fever, I lifted out a frame on which was the first sealed queen-cell, right on the eve of an issuing swarm, and discovered the mother-bee circling around the first sealed cell which was strongly guarded by the workers. As an experiment I dispersed the guards with the end of a stick, when the old queen seized the opportunity to make a fierce attack on the cell. The guards being no longer interfered with, rallied and forced the enraged queen away. Some of the guards worried and bit her legs as she sullenly retreated. Why should not the "great haste" which Mr. D. puts to the other account, be most likely to be thought necessary in the case I have described?

It is true that young queens reared by bees to supersede old, worn-out queens, are generally of the best quality; but this is a different case. The old queen is generally spared till her successor has proven her good qualities. Besides, the facts show that the poor, old mother-queen, with a wonderful display of stoicism, acquiesces in the whole proceedings.

There has been a great deal said about the dry, indigestible stuff often seen at the bottom of cells after the young queens have emerged. On this we have another *built-up theory*.

The theory is, that such queens having been "highly fed" must be extra good queens. There is very nearly nothing in this but bare speculation, handed down from one author to another, and accepted as true without investigation.

The individuality of the queen honey-bee as pertains to the functions of a mother-bee, is the result of a state of development above her sister worker-bees, and this state of development to be normal in nature, must be under the circumscription of nature's laws. Every close student of the habits of bees ought to know that young queens are fed to excess, surfeited with food quite as often as they are stinted for the want of it. I have seen embryo queens deluged with so-called royal jelly till they come to nothing but big, bloated, white worms, and perished in that condition; and I have seen them so stinted with food that they were developed but little above the worker-bee. These facts show that *right conditions* are those which result in good queens, and not the presence or absence of the mother-queen when the young queens are nursed in their cells.

When it comes to facts and experiences, my experience differs from that of Mr. Doolittle's. All the extra-fine breeding-queens that I ever had in my apiary, were reared by what Mr. D. and others call "artificial methods;" *i. e.*, they were reared under the care of myself or other skilled breeders.

I could bring forward the testimony of a number of intelligent bee-men, concerning the value of queens reared by me in the absence of the reigning queen; but I do not care to do it. It might have been a mere accident, but I have had a limited number of queens on trial in my apiary, from men who advocate the "swarming impulse" system of rearing queens, and not one of them showed any superior traits over the average queens in my apiary. One of these I paid $10 for, hoping to get an improvement on my home-bred queens; but she turned out to be inferior to a majority of my queens. Mr. Doolittle and myself will agree that queens are not equally good, no matter how they are reared.

Christiansburg, Ky.

For the American Bee Journal.

The Western Bee-Keepers' Convention.

E. M. HAYHURST.

The Western Bee-Keepers' Society met to-day in this city at the residence of Mr. Peter Otto. The attendance was smaller than usual, but most of us took our "wives and babies," thus making quite a houseful of jolly company. Mr. and Mrs. Otto made us feel entirely at home, and entertained us right royally at the dining table, as well as in their parlors. Our meeting was an entirely informal and very enjoyable reunion.

The reports made indicate that there was not only no surplus gathered the past season by the bees in western Missouri and eastern Kansas, but that most colonies had to be fed for winter, the season being an entire failure. Those present seemed to take their misfortunes very good-naturedly, and "blasted hopes" was not even whispered; all of us are making the usual preparations for the hoped-for crop of next season.

A number of topics were energetically discussed; perhaps the most interesting of these being "foul brood." We listened with great interest to Mr. L. W. Baldwin's narrative of his own, his brother's, and Mr. Jones' experience during the past summer with this much-dreaded malady. Early in the season they found all of their apiaries badly diseased, some 800 colonies in all being affected. Out of all but one apiary they completely eradicated the trouble; the evident reason for their failure in the one yard being a slight deviation from the rule of treatment applied to all of the others. Their case is a good illustration of what can be done by intelligent, energetic action. A motion was passed requesting Mr. Baldwin to write their experience in detail for publication in the AMERICAN BEE JOURNAL.

A resolution was also passed expressing the gratitude of the guests to our kind entertainers, for their generous hospitality.

A few minutes before adjournment the following board of officers was elected for the ensuing year, viz: President, J. V. Coleman; Vice-President, L. W. Baldwin; Secretary, Peter Otto; and Treasurer, John Conser.

The convention then adjourned to meet in the latter part of next April, at the Court House in Independence, Mo., in a basket meeting; due notice of the date to be given by the Secretary.

In the absence of Secretary Nelson, the writer was requested, by the Society, to make the above report.

Kansas City, Mo.

For the American Bee Journal.

Canadian Linden Honey.

R. M'KNIGHT.

On page 693, is an article by Dr. Mason, entitled, "Basswood *vs.* Linden," in which he manifests a good deal of feeling towards his "cousins across the border." None of his remarks, already published or hereafter to be written, will deter Canadian bee-keepers from selecting their own names for their own products.

Had the Doctor confined himself to a refutation of Mr. Pettit's statements respecting the quality of "American" basswood or linden honey, none of us, I am sure, would have felt called upon to interfere; but he does not confine himself to this or even to our right to employ the term we have adopted, but charges us as a people with dishonesty and fraud, when he says:

"And now, after the 'Yankees' have established a name for their 'fine, richly-flavored crystal' basswood honey in the 'markets of the world,' especially the English market, it seems that the Canadians, wishing to take advantage of its popularity, have previous to, during, and since their 'Colonial Exhibit,' been pushing their basswood honey under a (to them) new name, calling it (in a 'wily' way) superior to 'American basswood' honey."

Here are two or three statements in the above paragraph which require to be better established before they can be accepted as correct. The "name and popularity the Yankees have established for their honey in the markets of the world, especially the English market," are not so desirable as to lead Canadians to envy them for the advantages it brings them; but, on the contrary, we were especially desirous, when in England, to steer clear of any association with "American" products of a like kind. Not because we consider your honey in any way inferior to ours, but because "Yankee" honey is in bad odor with the English people.

It so happened, as the story goes, that once on a time an enterprising Yankee shipped some American honey to Britain, and when there he increased its volume by a liberal admixture of glucose. Bottling the mixture on the spot, he added to each bottle a tempting bit of honey-comb, and in this attractive form put it upon the market; but the bait did not take. The ruse of the Down-Easter was discovered, and the sins of that sharper are visited upon his countrymen to this day, as many of them who shipped honey to England since can testify. The injury and the insult has not been forgotten, and it will be some time yet before the confidence of Englishmen in the purity of "American" honey is restored. Englishmen are like a tamed elephant, "modest" and confiding until once deceived; but betray them once, and retribution comes soon and certain. No, no, Doctor, there was no "put up job" on our part to "rob you of the reputation" which your "fine, crystallized basswood honey" enjoys in England. We had, when in England, and have now, no other wish than that our honey should be known over there by the distinctive name "Canadian." Its good qualities are a sufficient passport to popularity.

Dr. Mason misstates the facts when he says that, "Canadians, in a wily way," or any other way, either here or elsewhere, have sought to destroy confidence in the good qualities of American basswood honey, and claim superiority for their own. I challenge him to name a solitary Canadian (apart from Mr. Pettit) who has made such a statement. "One swallow does not make a summer," nor one man a nation, and it is not generous on the Doctor's part to manifest such antipathy against his "cousins across the border, and their relatives across the pond," because one of our people holds and expresses opinions peculiar to himself, and in which his fellow countrymen do not sympathize. But we can afford to be disliked, for hate is an evidence of fear on the part of the hater, and power on the part of those hated.

As to the part I took in the adoption of the word "linden" as against "basswood," I have no apology to make, as I believe it to be the more appropriate of the two. Dr. Mason says: "Can it be possible, as Mr. McKnight says, that the term linden is at once more respectable and correct?" My answer is: "Yes, I believe it is at least more correct." This fact is established by Dr. Mason himself, for he has shown most conclusively that the term "basswood," as applied to trees, belonging to the genus *tilia*, are known by that name over a very limited portion of the territory upon which they flourish, and surely it is more correct to call the honey they yield by the name by which the trees are most generally known, than by the name least applied to them. Trees of the genus *tilia* are common to both Europe and America. Dr. Mason tells us that basswood is an unknown name for them in all parts of the United States, except a small portion lying north of central Ohio. They are not known by this name in England; neither is it applied to them on the continent of Europe.

But Dr. Mason complains that "linden" was employed by you to designate a particular kind of honey before it was in use here, and that we appropriated your brand. I accept the Doctor's statement, but when I gave my sanction to its adoption here, I was not aware that such was the case. But supposing we all knew it at the time, the Doctor should be more flattered than "riled" by the imitation, for I am sure our "linden honey" does the brand no discredit.

There is one other statement made by the Doctor which I cannot allow to pass unchallenged, as there is an insinuation in it that things were not conducted quite as they ought to have been by those who had charge of the Candian honey exhibited at the "Colonial." He says: "The *Canadian Bee Journal* also contained some warm words about what was done with some of the $1,000 granted them by the government to help pay the expenses of the honey exhibit at the "Colonial." No warm words were ever indulged in by any one as to the way in which this grant was used. The "grant" was disbursed, not by those who had charge of the exhibit, but by the treasurer of the Ontario Bee-Association (who was not one of the delegates), and no adverse comments were ever made as to the way in which it was expended. The warm words of which he speaks had no reference to this grant.

Owen Sound, Ont.

For the American Bee Journal.

Tartaric Acid in Winter Stores.

JAMES HEDDON.

Away back on page 585, Dr. Jesse Oren propounds two questions, one to Prof. McLain, and one to myself. The question with which I am to deal, is regarding the addition of tartaric acid to the winter food of bees. Now, I presume the Doctor is aware that I am a practical bee-keeper, and in my answer, which is the only one I can truthfully make, the Doctor will not be compelled to accept any theories whatever.

I believe that I have never used, nor advocated using, tartaric or any other kind of acid in any wintering food for bees except that composed of cane-sugar syrup; this I put into that syrup simply and solely to prevent re-crystallization, and it is a well-demonstrated fact that nearly all acids have that tendency. I have used it in proportionately small and large quantities, and I have never been able to discern that in any quantity in which I have used it, it was detrimental to the health of the bees; and as I have stated before, the late M. Quinby, after making some experiments, was of the opinion (and was planning to demonstrate the truth of that opinion, when his useful labors were suddenly brought to an end by death) that the addition of acid to the winter food of bees, whether of syrup or honey, would act as a preventive to the dreaded bee-diarrhea.

So, you see, Doctor, I never sought acid as a medicine for bee-diarrhea, but rather as an antidote for crystallization of syrup—a food which is much superior to honey for the safe wintering of bees, so far as my experience has gone.

Dowagiac, ♀ Mich.

For the American Bee Journal.

A Dry Season—Alfalfa.

MARY A. GOODALE.

This has been a very dry season here as well as elsewhere. Crops of almost all kinds were nearly an entire failure, and consequently the honey crop failed also; yet I find that our bees have made their own living all summer, and have stored an abundance of honey to carry them through the winter, with but very little feeding, goldenrod being a good honey-plant in this locality, and growing in abundance.

I commenced the season with 20 colonies, bought one colony for queen-rearing, but the only use that I found for queens was in superseding, as I did not increase my colonies either by division or making nuclei; neither did I have any natural swarms, and consequently I consider myself in the same place I was one year ago, minus the amount paid out last spring for supplies, as I got very little honey, having sold but 50 cents worth.

ALFALFA IN COLORADO.

I have been reading of alfalfa as a honey-plant; also that it is extensively sown in Colorado. I have been searching the files of the BEE JOURNAL for information on the subject, but although I find there is a State organization of bee-keepers in Colorado, and that alfalfa is highly prized as a honey-plant both in California and Nebraska, yet I find nothing from Colorado on the subject. Now, I would ask some who are acquainted with both the plant and Colorado, to give their opinions in the AMERICAN BEE JOURNAL. Would it pay to emigrate to Colorado, taking the bees along? Who can tell us anything of the prospects of bee-keeping in south-eastern Colorado?

Clear Creek, ♀ Ind., Nov. 30, 1887.

For the American Bee Journal.

The Bee-Keepers' Union Convention.

The Central Illinois Bee-Keepers' Association met at Pittsfield, Ills., on Nov. 26, 1887, in connection with the members of the Pike County Bee-Keepers' Association, for the purpose of uniting the two societies. W. T. F. Petty, President of the Pike County Association, occupied the chair, and Wm. Camm was elected Secretary.

On motion, the two societies were united under the name of "The Bee-Keepers' Union," when the following officers were chosen for the ensuing year: S. N. Black, of Clayton, Ills., President; J. M. Hambaugh, of Perry Springs, Vice-President; Thomas S. Wallace, of Clayton, Secretary; and Jno. G. Smith, of Barry, Treasurer.

It was decided to hold the next meeting at Clayton, early in October, 1888, the day to be fixed by the President.

The following are reports of colonies, the crop, and the condition of the bees for winter:

W. T. F. Petty, of Pittsfield, 90 colonies, spring count, 105 colonies fall count; 700 pounds of comb honey, and 200 pounds of extracted honey. The condition of his bees is good.

T. S. Wallace, of Clayton, 110 in the spring, and 100 colonies now. He had no honey, and the condition of his bees is poor.

J. G. Smith, of Barry, 15 colonies in the spring, and 14 colonies now. He had no honey, but the condition of his bees is good.

W. H. Raftery, of Pittsfield, 74 colonies in the spring, and 90 colonies now; 200 pounds of comb honey, no extracted, and the condition of his bees is fair.

John Pickup, of Pittsfield, 7 colonies in the spring, 14 colonies now; 28 pounds of comb honey, but no extracted. His bees are in fair condition.

C. T. Lame, of Horton Station, had 37 colonies in the spring, 44 colonies now, and took 200 pounds of comb honey, but no extracted. His bees are in fair condition.

Jos. Dober, of Atlas, had 11 colonies in the spring, 18 now, and took 300 pounds of comb honey, but no extracted. His bees are in good condition.

W. Camm, of Murrayville, had 96 colonies last spring, and 90 colonies this fall. He took 500 pounds of comb honey, and 700 pounds of extracted. His bees are in fair condition.

J. M. Hambaugh, of Perry Springs, had 138 colonies last spring, and 160 colonies in the fall, 22 being purchased. He had no comb honey, but 1,250 pounds of extracted honey. His bees are in fair condition.

Mr. Petty's bees had been moved to the Mississippi river bottom for a fall crop. Mr. Hambaugh's bees were put in the cellar on Nov. 10 to Nov. 21; the bees of other members being out-of-doors yet.

On motion, the meeting adjourned without formal discussion of any questions, as the weather was so rainy as to prevent many from attending.

WM. CAMM, *Sec.*

For the American Bee Journal.

Season's Results, Marketing, etc.

WILLIAM CRAWLEY.

I wintered 20 colonies in the cellar last winter, without any loss, except one queenless colony, and one-third of them were very weak. I increased them to 45 good colonies, and I have taken 1,000 lbs. of extracted honey, and 500 lbs. of comb honey in 1-lb sections, being 75 lbs. per colony, spring count. About two-thirds of it was linden honey, and the balance was from fall flowers. I have fed 250 lbs. of granulated sugar for winter stores. They were not short of honey, but I fed part of them syrup, as an experiment.

My honey is about all sold, and at home, too. Extracted honey sold for 15 cts. per lb., and comb honey for 20 to 25 cts., according to grade. I will give my method of selling honey, as it may be a benefit to some, and be the means of supplying our home market at a better price than we would get by sending it to commission-men. It is as follows:

Redwood Falls has a population of 1,500, with 6 groceries. I supply all these stores with a moderate amount of both comb and extracted honey, and I make the price for which they are to sell it, with the understanding that all I can use in trade shall be sold without any commission to them; but if I take money, they are to have a small commission for selling it. But I find that I can use the most of it in trade this year, and save me just so much money.

The above plan has worked well with me. The merchants have no money invested, and I find that they will not ship in honey if they can get it at home, as extracted honey is generally candied, and the comb honey is badly smashed up in shipping. The method can be carried to an unlimited extent, as my business increases and as there are a dozen towns within a radius of 30 miles of this place.

I exchanged honey and hives for 12 colonies of bees this fall, so that I now have 55 colonies in good condition in the cellar under the kitchen. I put them into the cellar on Nov. 19.

I have a foot-and-hand power saw, which for economy and fine workmanship in the apiary cannot be excelled. I make the most of my hives and fixtures with it. The hive I use is my invention, and from the past season's experience I think that it is just what is needed in this climate. It is an 8-frame hive, the same depth as the Langstroth and 1 inch shorter, so that a super holding 4 tiers of 4¼-inch sections will just fit the hive. The supers are what is called the "blank-strip section-case," or similar to it. I can use separators or not, as I like. I find that the contraction of the brood-chamber is very valuable when working for comb honey.

Redwood Falls, Minn., Dec. 6, 1887.

Botanical Gazette.

How Bees Extract Pollen from Flowers.

PROF. CHARLES ROBERTSON.

In regard to the visitors of *Asclepias Cornuti* (common milkweed) Dr. Hermann Muller observes that they "slip upon the smooth parts of the flower until a foot enters the wide inferior part of the slit, in which it at lasts gets a firm hold." Mr. T. H. Corry describes the insect as grasping the back of a nectary, and plunging its proboscis into its cavity, "endeavoring at the same time to get a firm and sure foothold on the unstable flowers," until the insect at length places one of its feet into the wider part of an alar fissure.

Having collected insects on the flowers of six species of Asclepias, I regard the normal action of the most common and most efficient to be that they hold on to a flower, or several flowers, in such a way that their feet go down below the angles of the alæ, and when the legs are drawn upwards they are caught between the strongly projecting hoods and guided by them over the entrance of the stigmatic chamber, which occupies the narrow interval between their bases. Of native insects, the most common visitors I have observed on A. Sullivantii, are humble bees (Bombus separatus B. Pennsylvanicus, and B. scutellaris) and Danais Archippus. The feet of humble bees reach down as far as the bases of the petals, and I have often found the pollinia fastened upon their tibial spurs as well as on their claws. I have also found pollinia of this species on the spurs and claws of Danais Archippus, and high up on tarsal hairs of Prionoyx Thomæ.

In a similar way, a specimen of Scolia bicincta shows pollinia of A. Cornuti on the tarsal hairs. However, the gynostegia of these species are so large that the feet of many visitors will not reach far below the angles of the wings, and, when this occurs, the claws are the only parts which are readily caught. The importance of the hoods in guiding the legs of insects over the angles of the wings, is more apparent in the smaller flowered species, since the more delicate wings catch hairs which are not only very fine and short, but which are also situated much higher up on the legs. Thus, hive bees caught on A. Sullivantii and A. Cornuti, show pollinia only on their claws and pulvilli, but they have the pollinia of A. tuberosa, A. incarnata, and A. verticillata scattered upon the hairs of the tarsi. A specimen of Argynnis Cybele, which I caught on A. Cornuti has pollinia of this plant on its claws, and pollinia of A. tuberosa on the tarsal hairs......

H. Muller, who supposes that the whole foot enters the stigmatic chamber, says: "When the insect tries to draw its foot out in order to proceed further, the diverging claws are caught by the apposed edges of the anther-wings, and guided upwards in the slit, so that one or other of the two claws is brought without fail into the notch in the lower border of the corpusculum and there held fast."

On the same subject Mr. Corry says: "When the foot reaches the superior end of the alar chamber in which it has been guided, one at least of the two hooked claws upon it, or some part of the foot in the case of Diptera, must easily enter the hollow cavity of the corpusculum, which lies in such a position that this result is inevitable."

The importance which these authors attach to the view that the whole foot enters the chamber, in my opinion, rests on a misunderstanding of the mode of insertion of the pollinia, and has led them to overlook the precision with which a corpusculum comes to be fastened to a hair or claw. The corpusculm is placed so nicely at the top of the wings that its cleft is fairly continuous with the slit between them, and I cannot conceive that the contrivance works normally unless the particular part, *i. e*., a single claw, hair, or pulvillus to which the corpusculum becomes attached, is caught between the wings and guided by them into the cleft.

Believing that all processes are caught as the leg of the insect passes over the angle of the wing, I suppose that only a single process is caught, and that a claw is caught in exactly the same manner as a hair or spur. In a careful examination of the feet of 116 hive-bees which were killed by being caught on the flowers of A. Sullivantii, I have found that, with but two exceptions when a foot was held by the wings, only one claw was between them, the other being free, or less often the pulvillus was held between the wings and both claws were outside.

When first withdrawn the pollinia lie in the same plane. In a few minutes the twisting of the retinacula brings the pollinia into nearly parallel planes, but the upper ends are still separated by quite an interval. According to the authors to whom reference has been made, the pollinia are inserted by the corpusculum. From the analogy of observations made on the movements of the pollinia of some Orchidaceæ some advantage might be looked for in the slow movement of the pollinia of Asclepias. Indeed, Mr. Corry, who has observed this phenomenon in A. Cornuti, states that it is of advantage, although he fails to show it; and I think it impossible so to do on the supposition that the pollinia are introduced by the corpuscula. He says:

"Some considerable time, moreover, must elapse after the pollinia are extracted before the corpuscular appendages are so far dried that both pollinia of the same corpusculum can be introduced through the fissure into the alar chamber, and in the meantime the insect has had time to reach another flower or plant."

On another page he observes: "If the movement did not occur on the part of the pollinia, their broad surfaces would lie at right angles to the alar fissure, and their insertion into it in this position through the notch would in consequence be rendered a much more difficult, if not an altogether impossible, operation; or else the pollinia in being slipped in would become folded in the opposite direction, and the less curved border which emits no pollen tubes would be first inserted into the fissure." But what is to prevent this consequence before the movement takes place? Whatever might happen there is obviously nothing to render the introduction of the corpusculum itself more difficult before the movement occurs than afterwards, so that the slowness of the movement is hardly an advantage under this view. If the corpusculum were very slender or flattened so that a thin edge could be presented to the slits, there would be no difficulty in understanding how it could readily slip into the stigmatic chamber; but it is a rounded body, and is relatively large in comparison with the entrance to the cavity.

Of course, if the whole foot of an insect commonly enters the stigmatic chamber, it is not hard to understand how the corpusculum should go in with it. But when the corpusculum is fastened to a hair which is directed outward and downward from the leg of the insect, and which is often so short that the corpusculum is fairly in contact with the leg, the difficulty increases.

In the examination of the feet of hive-bees killed on the flowers, I have failed to find a single case in which a corpusculum was attached to that part of the foot which was held between the anther wings. In my opinion, therefore, the structure of the corpuscuulm is so far from facilitating the introduction of the pollinia that it prevents the part to which it is attached from being again caught in the slits; and, until the movement occurs, the corpusculum with its two pollinia will pass over the entrance to the stigmatic chamber without being injured.

After the movement occurs, if the corpusculum be examined from one side, it will be observed that the retinacula project outward and downward. Since the parts to which the corpuscula are attached themselves project outward and downward, the retinacula finally stand nearly at right angles to the leg of the insect. The retinaculum, near the point where it joins the pollinium, is bent rather suddenly, so that the pollinium appears to be flexed upon it. This flexure, which Mr. W. H. Leggett has called the knee, is very prominent.

There is quite an interval between the knees and the membrane of the retinaculum at the knee is expanded transversely to the plane of the pollinium. Robert Brown has observed in A. purpurascens, that the part of the retinaculum extended between the knee, and the pollinium remains attached to the latter when it is found in the stigmatic chamber. This expansion of the membrane serves to prevent the withdrawal of the pollinium after it has been inserted into the cavity, and, when drawn against the closely opposed edges of the alæ in the upper part of the stigmatic chamber, facilitates the rupture of the retinaculum.

Judging from the structure of parts which are readily caught between the anther-wings, nothing could be more natural than for one of the knees to slip into the entrance to the stigmatic chamber, and the movement is intended to turn them into such a position that this will occur. When, therefore, the movement has taken place, and the insect draws its leg over the angle of the wings, the corpusculum with the claw or hair to which it is attached, passes on without being caught, while one of the knees of the pollinia readily enters the stigmatic chamber, and the pollinium enters with it. When the knee has reached the upper part of the cavity, and will go no further, the retinaculum is torn across and escapes, leaving the pollinium in position to effect fertilization.

In repeated trials at artificial pollination of the flowers of A. Cornuti, A. Sullivantii, and A. incarnata, I succeeded three times, in the case of A. Sullivantii, in separating the pollinium from the retinaculum without withdrawing the latter from the slit, and thus was enabled to insert a pollinium, and to draw out a corpusculum at the top of the alæ with its two pollinia by the same movement. But in all other cases a pull that seemed sufficient to break the rectinaculum freed it from the slit so that the corpusculum at the top remained intact. Accordingly, I have seen no difficulty, on the supposition that the pollinia are introduced by the knees, in the observation of H. Muller, who says:

"In several flowers which I dissected, the corpuscula and pollen masses were still in their places, though pollinia, which must have come from other flowers, had been inserted into the stigmatic chamber."

In a number of cases observed by me on A. Sullivantii, the movement which turns the knees toward the flower is completed in about seven minutes, though it has proceeded sufficiently in five minutes to turn the flexure far enough to render its insertion quite likely. With the view of pollination stated in this paper, the slow movement is plainly of advantage, because a knee can hardly be caught by the wings until it has occurred.

Now, since only one pollinium is inserted into the stigmatic chamber, there is an economic disposal of the pollinia. The interval between the flexures is so great that only one of them can be caught, while the other passes by the slit uninjured. There are, therefore, two chances of a pollinium being transferred to another plant. If both pollinia were left at each act of pollination, there would be but one chance of cross fertilization. Moreover, the chances of cross fertilization would be reduced from the fact that the stigmatic chambers would be more nearly filled by pollinia from the same source, while if they are introduced singly, there are more chances of a chamber receiving a pollinium from a distinct plant.

As two pollinia are fastened together, there would be but one chance of pollination occurring if the pollinia were inserted by the corpuscula, while there are two chances of a knee being caught. When a pollinium has been removed, the broken retinaculum may be caught in a slit and remove a second corpusculum with its two pollinia. When this combination of two corpuscula and three pollinia is drawn over the angle of the wings, there are three chances of a pollinium being caught. Whenever a pollinium is removed, two new pollinia may be substituted for it, and a large combination of pollinia may result, arranged either in a unilateral series or dichotomously. In either case, the chances of the insertion of a pollinium equals the number of pollinia in the combination.

If the foot to which the first corpusculum of the combination is attached must enter the stigmatic chamber, of course there would be but one chance of pollination taking place without regard to the number of pollinia. Such an accident would be likely to destroy the whole combination. As already observed, on the large flowers of A. Sullivantii and A. Cornuti, the shorter hairs on the legs of insects are not readily caught, so that the number of parts to which the corpuscula may be attached are reduced to the minimum.

For instance, the only parts of the leg of a hive-bee which can remove the corpuscula of these species, are the two claws and the pulvillus. The leg will thus remove three corpuscula, and since these bodies render useless the parts to which they are attached, the broken retinacula not only take the place of the parts disqualified, but increase the number of parts to which the corpuscula can be attached. By means of these combinations, therefore, the leg of an insect has its capacity for carrying pollinia greatly increased...

Finally, I have seen the pollinia of A. Sullivantii introduced into the stigmatic chambers in the manner described. The pollinia and the entrance to the chamber in this species are very large and are easily seen, and hive-bees move so slowly in effecting pollination that, after a knee is caught, one can see the pollinium slowly disappear between the wings, so that there can be no doubt as to the manner of insertion. Commonly, however, the insertion of pollinia occurs so rapidly that it is impossible to see how it really happens. After a pollinium has been introduced into the chamber, hive-bees always have difficulty in breaking the retinaculum, and they lose their lives on account of this as well as on account of the difficulty in drawing their claws through the slit. When a foot is held by a retinaculum the pollinium is found in the chamber, with every indication that it was introduced by the knee.

Blackburn University, Chicago, Ill.

[The foregoing article was sent to us by Mr. J. M. Valentine, of Carlinville, Ills., being "advance sheets" of the *Botanical Gazette* for October, 1887. It will be read with great interest by those who heard the address of Prof. Cook at the Chicago convention on "The legs of the bee," and also by all who are interested in learning the relation which bees sustain to the blossom and the fruit. Mr. Robertson is professor of botany at the Blackburn University in this city.—Ed.]

For the American Bee Journal.

Results of the Season of 1887.

J. M. CLARK.

I commenced the season of 1887 with 23 colonies in fair condition, which built up very strong during fruit bloom. The honey season opened very encouragingly, but from some cause, even before the drouth commenced, the honey-flow slackened up. White clover bloomed abundantly, but yielded very little honey. Basswood bloomed very full, but before we could realize its presence, it was gone. We were having quite a "bonanza" on sweet clover, there being about two acres of it. It is growing along one of the railroads, but just as we were exulting in our good fortune, the railroad officials had it all cut down.

The fall flowers yielded some very nice white honey after the rains commenced, but we did not get any buckwheat honey.

Now as to the results: I extracted 1,150 pounds of extra nice white honey, weighing nearly 13 pounds per gallon, for which I have been receiving an average of 11½ cents per pound; also 100 pounds of comb honey. I increased my apiary to 43 colonies, and doubled them back to 37 colonies. I fed 160 pounds of granulated sugar syrup. All of my colonies are packed in chaff on summer stands.

Some of my neighbor bee-keepers did much better than I. One harvested 2,000 pounds of comb honey from 27 colonies, spring count; but he sold it early at 12½ cents per pound. We have one very enthusiastic bee-keeper in this county, as the following incident will show:

He has great faith in "water-cure," was sick, and his father had him packed in wet blankets for a sweat. Just as the perspiration was nicely started, he looked out of the window and saw the bees swarming. He jumped up, throwing the blankets right and left, exclaiming, "Out of this, out of this;" and slipped into his clothes, and was out after the bees in less time than it takes me to write it.

Hillsdale,♀ Mich., Dec. 6, 1887.

For the American Bee Journal.

Bee-Keeping in Missouri, etc.

JOHN BLODGET.

Some of my neighbors' bees swarmed out during the last warm spell; I suppose it was for the lack of food. My bees are packed away in chaff, as warm as can be. I have 10 colonies in good condition. Last spring I had 8 colonies, and have taken 15 pounds in all, which is a big yield for this year. I fed the 10 colonies 64 pounds of sugar.

I think there will be a good pasturage for next year, for the white clover came up thick where the drouth killed out the blue-grass, so what bees there is left will have plenty of food. Linden does fairly in this place, but it is two miles away, and we cannot depend upon that source for any great yield; but it helps. Heart's-ease yielded well while it bloomed, but the drouth killed it all out on the oats and wheat ground; so in all we had the most complete failure ever known to bee-men here.

Some say that it does not pay to keep bees. I would ask such faint-hearted bee-men, what does pay in such a year as the one just ending? All over this country the farmers have not raised any corn, and they are going to the railway stations, and paying 45 cents per bushel, where they usually have received 20 cents per bushel for corn. I do not think that there is one in fifty that will say it does not pay, and that they will quit the business. I believe that it would be better not to depend altogether upon bees, but if one does, it will pay the best for the money invested, of anything that he can do, if he has the "stick-to-it."

Empire Prairie,♀ Mo., Nov. 27, 1887.

Local Convention Directory.

1887. *Time and place of Meeting.*

Dec. 15.—Southeastern Michigan, at Adrian, Mich.
A. M. Gander, Sec., Adrian, Mich.

1888.
Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 17,18.—N.W. Ills & S. W.Wis., at Rockford, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

Jan. 17-19.—New York State, at Utica, N. Y.
G. H. Knickerbocker, Sec., Pine Plains, N. Y.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Affliction of an Old Bee-Keeper.—Mr. Gust. Murhard, of Portland,⊸ Oreg., on Dec. 1, 1887, writes:

Having not only by old age become disabled to attend to my bees, but having also, by the sudden death of my wife last June, lost all personal interest in anything, I am a retired man in apiculture, I feel sorry to say.

[Our condolence as well as that of the whole bee-fraternity is hereby tendered to our afflicted brother, while we say "good-by."—ED.]

Bees Wintering Well, etc.—Jas. F. Johnson, Salem,♀ Mo., on Dec. 5, 1887, says:

My bees are wintering well. The weather is mild and rainy. Would not "honey extracted from the comb," or "honey extracted," be better than the name as it is now used?

[No; as a name it would be entirely too long.—ED.]

Market Reports of Honey.—J. M. Valentine, Carlinville,⊙ Ills., on Nov. 26, 1887, writes:

I have read the item on page 723, in which Messrs. D. G. Tutt & Co., take exceptions to my statements in regard to their honey market report, as published in my article on page 697. All I have to say in reply is, that I *was* in D. G. Tutt & Co.'s business house in St. Louis, on Sept. 27, 1887, and inquired for honey in the comb, and also extracted honey (I may have asked for clover or fall honey). The gentleman who asked me if there was anything I wished, said that they had none on hand. Upon asking him if he could inform me where I could find some, he replied that he did not think I could find any. I may be mistaken about the California honey—it may have been at some other house where I saw that. I do not think that it would be any disgrace to the house, if they had a few cans and jars of California honey. It is nice.

As to their market quotations referred to, I will simply refer the readers to quotations on page 605 of the BEE JOURNAL of Sept. 21, 1887. It will be found that I quoted it correctly.

[As we desired to end this controversy in this issue of the BEE JOURNAL, we sent Messrs. Tutt & Co. a proof of the above, and asked them if they desired to make any reply to send it to us at once, and their reply is as follows:—ED.]

In reply we can only repeat what we said in our former communication. We have no recollection of having seen or spoken to the gentleman. In regard to the quotations named—we have not that issue of the JOURNAL before us, and hence we cannot answer intelligently.—D. G. Tutt & Co., St. Louis, Mo., Dec. 7, 1887.

Hardy Raspberries.—C. A. Bunch, La Paz,♂ Ind., on Nov. 26, 1887, says:

I should be glad to have some Michigan bee-keeper tell through the BEE JOURNAL of some kind of raspberries which will not winter-kill, and that will be first-class for bees to work on. I use the regular Langstroth frame, but think I shall make them hereafter only 9⅛x16¼, so that the crate will reach to the ends of the frames. How will it work?

[As to the raspberries, will some of our Michigan readers kindly reply.

We cannot approve of any change of the size of frames from the *standard* sizes. It makes confusion in buying and selling, as well as sometimes making it necessary to use odd size sections for surplus. If you stick to the size you now have (the Langstroth), we think you will never have just cause to regret it.—ED.]

Colonies Rich for Winter, etc.—Theo. Johnson, Bower,⟜ Nebr., on Dec. 5, 1887, writes:

I began with 70 good colonies last spring, and increased them about 25 per cent. The season was bad here, as elsewhere, so I have realized only about 1,000 pounds of honey in good condition for market; but I leave all my colonies rich for winter. Here in Nebraska our honey-flow for surplus is always in autumn; so with proper care we have no necessity of feeding for winter. Although I am working principally for comb honey, yet I think it wise in the late Chicago convention not meddling with the name "extracted." Had any other name been unanimously chosen, I surely would have accepted it. In connection with my apiary I have established a fishery, and now have a fine lot of fish. I think many apiarists would find it to their profit and pleasure to do likewise.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, postpaid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the BEE JOURNAL for one year, both postpaid, for **$1.25.** We can supply all orders by **return mail.** The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

A Valuable Book Given Away.—We have made arrangements by which we can supply the AMERICAN BEE JOURNAL and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

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The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a cardboard case, at the subscriber's risk; if lost it cannot be replaced.' Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

We have a few Sets of the BEE JOURNAL for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

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The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
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Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 80
Canadian Bee Journal	2 00	1 80
The 6 above-named papers	5 00	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
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One yearly subscription for the AMERICAN BEE JOURNAL must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the AMERICAN BEE JOURNAL. Subscribe *now*, and get the rest of the numbers of this year **free.** The sooner you subscribe the more you will receive for your money.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. LOOK AT YOUR WRAPPER LABEL.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-lbs. 15@18c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.
BEESWAX.—22@23c.
Nov. 8. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—Prices range from 18@20c. for best grades, with light demand ; 2-lb. sections, 15@16c. Dark is not wanted. Extracted is steady at 7@10c., according to style of package.
BEESWAX,—20@23c. R. A. BURNETT,
Dec. 7. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections, 17@19c. Extracted, 9@10c. Demand fair.
BEESWAX.—21@23c.
Nov. 21. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sell readily at 19@20 cts.; 2-lbs., 17@18c. White clover extracted, 8c.
BEESWAX.—25c.
Oct. 24. A. C. KENDEL, 115 Ontario St.

SAN FRANCISCO.

HONEY.—We quote : White to extra white comb 16@18c.; amber, 10@14c. Extracted, light amber, 6@6½c.; amber, dark and candied, 5¼@5¾c.; extra white would bring 7½c., but none is in the market.
BEESWAX.—19@22c.
Oct. 3. O. B. SMITH & CO., 423 Front St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@18c.; dark 2-lbs., 15@16c.; choice white 1-lbs., 20@22c.; dark 1-lbs., 15@17c. White extracted, 8½@7c.; dark, 5@8c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Nov. 23. HAMBLIN & BEARSS, 514 Walnut St.

KANSAS CITY.

HONEY.—We quote : Choice white 1-lbs., 20c.; dark, 15@18c.; choice white 2-lbs., 18c.; dark, 14c. Extracted, 8@10c. California—white 1-lbs., 18c.; dark, 15c.; white 2-lbs., 16@18c.; dark, 14@15 cts. White extracted, 9c.; amber, 8c. Supply fair.
BEESWAX.—No. 1, 22c.; No. 2, 18c.
Oct. 6. CLEMONS,CLOON & CO., cor 4th&Walnut

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 3½@8c. per lb. Choice comb, 18@20c., in the jobbing way. The demand is fair for honey of all kinds, and keeps pace with arrivals.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 10. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, 17@19c.; fancy 2-lbs., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10 to 11c. Extracted, white, 9@10c.; buckwheat, 6 to 7c. Market firm.
Nov. 22. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 19@20c.; fair 1-lbs. 18c.; fancy 1½-lbs., 18c. No sale yet for dark.—Extracted, California, 8c.; Cuba strained, 68@70c. per gallon.
BEESWAX.—24@25c.
Oct. 10. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 19@20c.; 2-lbs., 18 to 19c.; fancy white might bring 21@22c. White extracted in barrels or half-barrels, 8@8½c.; in kegs, 8½@9c.; in cans or pails, 9@10c.; dark in kegs and barrels, 8½@7c. Demand good.
BEESWAX.—22@25c.
Oct. 26. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: White to extra, 15@18c.; amber, 10@13c. Extracted, white liquid, 7@7½c.; amber and candied, 5½@6½c. Market quiet.
BEESWAX.—20@24c.
Dec. 3. SCHACHT & LEMCKE, 122-124 Davis St.

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 8@8c. The market is not very brisk.
BEESWAX.—25 cts. per lb.
Nov. 21. BLAKE & RIPLEY, 57 Chatham Street.

Convention Notices.

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice.
J. W. BUCHANAN, *Sec.*

☞ The next meeting of the Nebraska State Bee-Keepers' Association will be held on Jan. 11, 1888, at Lincoln, Nebr.
HENRY PATTERSON, *Sec.*

☞ The Southeastern Michigan Bee-keepers' Association will hold its annual meeting in the Supervisor's room in the Court House at Adrian, Mich., on Dec. 15, 1887. A. M. GANDER, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southeastern Wisconsin Bee-Keepers' Association will be held in G. A. R. Hall, corner of State & North Main sts., in Rockford, Ills., on Jan. 17 and 18, 1888. Dr. Miller will be present, and a good programme is in course of preparation.
D. A. FULLER, *Sec.*

◆

Don't do it !—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation !** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

◆

New Subscribers can obtain the full numbers for 1887 and 1888 for $1.80, as long as we have any sets of 1887 left. There are only a few, and to get them an early application will be necessary.

Advertisements.

WANTED.—WORK, by a Bee-Man who understands the business.
FRANK CURL,
47Atf (Lock Box 62), East St. Louis, Ills.

HOW TO RAISE COMB HONEY,

PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa.

WANTED,
EXTRACTED HONEY & BEESWAX.

ANY ONE having the above to consign or sell, will find it to his interest to correspond with us. We handle all kinds of produce and make liberal advances on "bill of lading." Address, **S. T. FISH & CO.,**
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Another feature will be that of making each number, to a certain extent, what might be termed a "special" number. For instance a large share of the correspondence, editorials and extracts of the first number will be devoted to the subject of, "Disturbing Bees in Winter."

Our own apiary will, hereafter, be largely experimental, and of this our readers will have the benefit.

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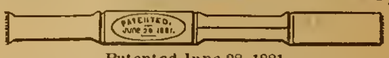
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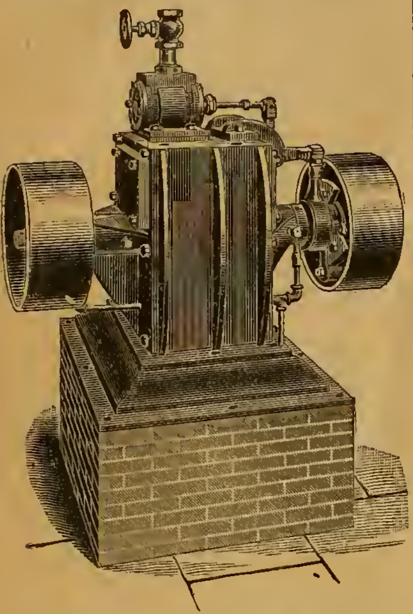

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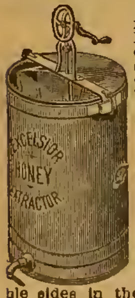

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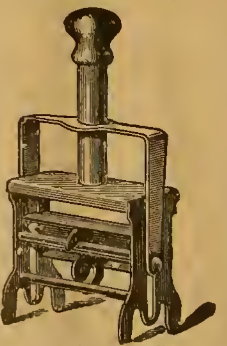

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AMERICAN
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BEE JOURNAL

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Dec. 21, 1887. No. 51.

Merry Christmas now is here,
Brightest time of all the year ;
Gentle words and greetings gay,
From friend to friend on Christmas day.

Twine the laurel and the bay,
With the holly-berries gay ;
Deck the walls with garlands bright,
On merry, merry Christmas night.
—*Vick's Monthly.*

Christmas will have come by the time this number of the AMERICAN BEE JOURNAL reaches its readers. No holiday is more welcome than this. It is ushered in with pleasant gifts of friendship, and ends in the pronunciation of blessings on all. Its observance for so many hundreds of years has given it a character which appeals to all to promote the joy and happiness of kindred and friends. Christmas-trees, and Christmas greetings are the order of the day. Let no selfish thought be connected with this grand day ; let it be universally bright and beautiful, that all hearts may rejoice and be glad ! A MERRY CHRISTMAS FOR ALL.

A Modern Bee-Farm and its Economic Management. Showing how bees may be cultivated as a means of livelihood : as a health-giving pursuit ; and as a source of recreation to the busy man. Profits made certain by growing crops yielding the most honey, having also other uses ; and by judgment in breeding a good working strain of bees. By S. Simmins, Rottingdean, Brighton, England.

This is the title of a new book just published of about 200 pages. It is printed on excellent paper, and is nicely bound in cloth. Price $1.00. It covers the whole field of apiculture, and is written in a terse and interesting manner. It can be obtained at this office.

Wide - Awake — 1888.—The new year has already begun with the holiday number just out—a truly great number, larger and richer, more varied, and better than ever before.

We know of no Christmas gift so sure of bringing a happy response in a reading family. Send $2 40 to D. Lothrop Company, Boston.

Poisoning the Bees.—Of all the diabolical plots and conspiracies hatched by the enemies of the honey-bees, the most dispicable is that of feeding them on honey "loaded to kill" with poison.

A copy of the "Messenger," a little local sheet published at Atlantic, Iowa, was sent to us, which contained an article advising this method of treatment for inoffensive bees. The writer says :

> This part of Iowa is rapidly coming to the front as a grape-raising country, and it behooves those interested in the matter to consider and decide upon some means by which the grapes may be protected from the ravages of bees.
>
> The grape-raising industry has been almost entirely killed in Ohio by this nuisance. Last summer the papers gave accounts of the complete devastation of entire districts in Illinois, and now we hear complaints on every hand of the destruction wrought by the pests, in this State and county.
>
> The writer hereof, has had the entire products for two years of fifty vines taken by the bees, which, as soon as a grape ripens, pierce the skin, suck out a little of the juice, and leave the grape to rot. Now, inasmuch as the grapes are worth a great deal more than the bees, some means must be devised for putting a stop to the present state of affairs.
>
> I have thought of many plans—only one of which seems feasible, and that is, to place near the vines just before the grapes are ripe, dishes containing honey well dosed with some active poison, something that will kill them before they can reach their hives. Can any one suggest a better plan ? In some States laws are enacted prohibiting the keeping of bees in grape districts, but as we have no such laws here, we must devise means for our own protection.

In the second paragraph this ignorant "ranter" asserts that "the grape-raising industry has been almost entirely killed out in Ohio, by this nuisance." All of which we deny. It is a malicious falsehood, and the author of it was either ludicrously ignorant, or he is a willfully malicious slanderer !

The paper which has published such a vile defamation would indeed be a "MESSENGER of death" if its advice should be carried out. We do not think that there are many who would listen to such dastardly mean advice ! Suppose these bees should get a small quantity of it, reach their home, and then get it mixed with some honey, would not the instigator of this plot be held liable for any damage done to humanity as a result of eating this poisoned honey ?

The "Messenger" should be a little careful of letting such vindictive scribblers take possession of its columns. The public will undoubtedly hold it responsible for any calamity that may follow in that line of "bomb-throwing."

Queries are again crowded out of this issue, by a PRESS of other matter.

Sample Copies.—Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

To be Frank with a young Benedict let us say that Mr. Frank G. Hopkins, Jr., of St. Joseph, Mo., is a trifle sly and secretive, not to have informed us of the nearness of a great event, when we were riding around the city of St. Joseph last fall together. But we will forgive him this time, now that he has been so fortunate as to secure such a charming life-partner as Miss Augusta Keller.

Among the long list of wedding presents in the "Herald" we notice that of a complete outfit of household furniture from his father, Capt. Hopkins. The "Herald" says :

> They will be at "home" to their friends at Woodland farm and apiary, just north of the city limits, on the road to the water works, where the young Benedict will devote his attention to scientific bee-culture and the raising of blooded stock, for which avocations he has a natural fondness and much experience.

"Frank" is one of the most genial and companionable young men we ever met—to us he was indeed "charming," a progressive apiarist, and fancier of live stock, of correct business habits, and possessing bright conversational powers.

We wish Mr. and Mrs. Hopkins much pleasure and prosperity. May the "apiary" at Woodland produce much "honey"—not only by the bees in the swarming season, but every month in the year by the young couple of cooing-doves.

Tin is Quite Necessary for bee-keepers, but the prospect is that there will be a large advance in prices. Here is what the daily papers say of it :

> The excitement in the New York metal exchange over the recent advance in copper and tin is unabated, and developments are awaited with great anxiety by leading operators. The speculative interest is keenest among dealers in copper. The bulls declare that the supply of the metal is daily decreasing in proportion to the demand, and predict a continued rise in its price. There are some fears that the fruit and vegetable canning industry will receive a check next season owing to the difficulty in obtaining tin-plate for the manufacture of cans. Scarcity of tin has created a "corner" in that article. Want of "tin" heretofore has bursted other "corners."

Those who can do so will exhibit shrewd business qualities by buying AT ONCE any extractors, tin pails, and such tin goods as they may soon need—before the rise in prices.

Heads and Faces, and How to Study Them ; a manual of phrenology and physiognomy, by Prof. Nelson Sizer, phrenological examiner, and Dr. H. S. Drayton, editor of the "Phrenological Journal." This book of 200 pages is on our desk ; it is profusely illustrated, and can be obtained of the publishers, Fowler & Wells Co., 775 Broadway, N. Y., for $1 in cloth binding, or 40 cents in paper covers.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♂ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ⌒O northwest; O⌒ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

A Plea for Large Frames.

J. M. HAMBAUGH.

It seems to me that the most important feature of bee-culture is either ignored or carelessly overlooked, in the bee-lore of our best modern apicultural writers. It is a fact that none will dispute, that we measure our harvest by the strength of our colonies numerically; and to achieve the best results in this direction should be the guiding-star of the apiarist, and the brood-chamber should be constructed in accordance with the natural laws governing the household economy of the honey-bee.

Let us take a peep at the bee in its natural habitation, where they become their own architects in the construction of their own combs, and what do we find? I have transferred hundreds of colonies, in all kinds of hives, nail-kegs, log-hives, box-hives, and from bee-trees in the woods, and the same principle that governs one governs all, in the main, and that is, large, deep, roomy combs, with stores above, brood beneath, and combs spaced from 1½ to 2 inches from centre to centre. In the early part of the season sealed brood can be found in the centre of the combs, next to which can be found larvæ in all stages, and on the outside of all, eggs; showing conclusively that the queen first commenced her laying near the centre of the comb, and like a spider spinning her web, she plies her vocation from centre to circumference—Nature's most economical method of time-saving to the queen in her vocation of reproduction.

We should imitate nature in the construction of our hives, especially in that of the brood-chamber, that we may bring about the greatest strength possible, numerically, from the prolificness of the queens. To accomplish this, I contend that the most essential point in apiculture is, our combs should be so arranged that not one second of time need be lost by the queen in her onward march from cell to cell, depositing in the heighth of her fecundity about two eggs per minute, or nearly 3,000 eggs in 24 hours. In order to do this, she should not be confronted with horizontal bars and bee-spaces in the centre of her brood-nest, as they are certainly a great barrier against her fecundity, being contrary to the laws of her natural domain. Being thrown out of her natural circuitous orbit, she loses time in passing over bars and bee-spaces, and shifting from side to side, thus losing the benefits of the queen's functions, which means a serious detriment to the strength of the colony.

Mr. Heddon has the lasting gratitude of the apicultural world for his many discoveries and substantial inventions, and we certainly have no desire to rob him of his justly earned fame; but we do take issue against a shallow sectional brood-chamber, for reasons heretofore mentioned, and sincerely believe that had he exercised his ingenuity and inventive powers on a hive with combs of larger dimensions, he would have come nearer "the hive" that will *come to stay*, and would have opened a new era, far in advance of that realized by his present device.

My argument is not altogether from the reasoning of Mr. H's departure from the theory governing their household economy, but years of practical experience with small and large hives has confirmed my statements in every particular, as regards the superiority of large combs over small ones, for obtaining strong colonies.

Let those who doubt my statement try an equal number of colonies with queens of equal fertility, and report. It is said that "the proof of the pudding is in the eating thereof," and if Messrs. Heddon, Hutchinson and others can give reports of larger yields of honey from the sectional brood-chamber hives, than can be given from hives of large, roomy combs, I will have to acknowledge the fallacy of this article. I wish to get at facts, and if "the new must give way to the old," and the time is near at hand when "we will manipulate hives more and frames less," we wish to know by actual test the reasons, why's and wherefores.

Spring,+O Ills.

Glasgow, Scotland, Herald.

Bees and Bee-Keeping in Scotland.

THE PRACTICE OF YEARS AGO.

Of the various employments of an industrial character that in former times engaged the attention of tradesmen and laborers in many rural localities in Scotland, in addition to their stated avocations, that of bee-keeping was pretty widely followed. In many farm-places, and in every hamlet and village there might be seen, placed in the sunniest nooks and exposures of the gardens, bee-hives varying in number from three to forty or fifty. These formed quite as common features in the cottagers' "yards" as a drill of potatoes or a row of cabbage. In addition to the common cottager, nearly every village blacksmith, joiner, shoemaker, tailor, and weaver was an apiarist. Attention to their bees occupied their odd times, at certain seasons requiring more time, which was ungrudgingly given by the tradesmen portion of them.

Whilst this work was a pleasure it was also a source of profit, forming a much-needed addition to their scanty incomes. From £8 to £15 in many cases were realized. In the case of those who kept a greater number of colonies (of which there were a few), the return of course was greater. For the districts within moderate reach, Edinburgh and Glasgow were the principal marts for the sale of the honey, which was conveyed thither by the village carrier. The apiarists, if they belonged to the tradesmen class, usually accompanied their goods (getting a "*cast* on the way" from the carrier) in order to negotiate the sale with the city merchants. This was an important transaction, and when they got a good price they returned home in high spirits with the results of their honey season.

The system of bee-culture, however, then followed was not fitted to produce the largest harvest. The plan of swarming then in vogue reduced the strength of the parent colonies, producing a number of weak colonies, which, in many cases, stored just as much honey as sufficed to keep them throughout the winter. The cruel practice of "brimstone smoking," by which bees were sacrificed, was simply a destruction of honey-producing power. The system required good, genial summers to secure moderate profits. So long as the warm summers of former years continued, bee-culture was so far a fair success, but with the change into cloudier and colder summers of succeeding years, the honey harvest greatly decreased. Many colonies died out, leading in the great majority of cases to the giving up of bee-cultivation by the ordinary cottager.

The modern system of bee-culture—the "depriving system" and bar-frame hive, by giving additional storage-room, preventing swarming, thereby strengthening colonies—has wrought quite a change in the plan formerly pursued, resulting in the production of a larger yield and better quality, thus opening up the way for the return of more than the former prosperity.

Under the old system the idea of giving additional storage-room was given effect to only occasionally, and in the case of exceptionally good colonies. The much greater results from this new system are full of hope and encouragement to the cottager-class of apiarists and others, already noticed as having been in former days so numerous, to their resuming the cultivation of this branch of industry with greater certainty of success.

For the American Bee Journal

Ordinary Business Sagacity.

M. M. BALDRIDGE.

This year there is no surplus honey worth mentioning in northern Illinois. The Oatman Brothers have about 700 colonies of bees, and have been obliged to feed them, more or less, all through the past season. Last year they had, so report says, about 40,000 pounds of honey, all in the square one-pound sections. Report also says that they made one sale of honey last year of $5,000 worth, spot cash, at their deport. They sold *early*, and by so doing, they made for once a lucky hit.

All of their bee-operations are kept exceedingly quiet, having learned that it does not *pay* to do otherwise. They never *brag* at bee-conventions for the public eye, nor among their non-honey-producing neighbors, or elsewhere when harm might ensue, about their big crops of honey; nor how little the honey costs them; nor how soon they expect to become millionaires!

There are a few honey-producers in the United States, and they sometimes attend bee-conventions, who might be profited by following the common-sense example of the Oatman Brothers. But will they do it? Please keep an eye upon them in the future and see!

St. Charles, δ Ills.

Iowa Homestead.

Do Bees select a home before Swarming?

SOME INTERESTING FACTS.

We have always regarded the statement frequently made, that before leaving the apiary, if not before leaving the hive, bees have a new home selected if not fitted up, as a tradition that might, and again might not have a basis of fact. We had an opportunity last week to see for ourselves; or rather, to get our information from first hands, and under circumstances that left no opportunity for mistake.

On Sunday Mr. Vance, the manager of our creamery farm, discovered bees clustered under the window sill of his bed-room. There were but few of them; probably half a pint, and they seemed to go in and out of a very small crevice where the weather-boarding had shrunk from the sill.

He concluded this must be the traditional committee of investigation, appointed by whatever power rules in the bee-hive, to find out whatever *good* lay before them, and report.

The committee stayed all Sunday forenoon, and spent the night and the next forenoon. The bees were Italians of a brighter and better color than any in our apiary, and hence were clearly strangers. The next afternoon, while Mr. V. happened to be watching them, a large swarm of bees of the same color came in from the northwest and immediately began to cluster and enter the aperture in the siding. By prompt and efficient use of the smoker, they were driven out, the hole closed and the bees clustered on a tree and hived. We know of no bees of the quality nearer than nine miles to the northwest.

This seems to us a demonstration that bees select their home. This committee had evidently reported a land of promise near the Alsike, white clover, and linden, and had sent back a good report of the land as well as guides to bring on the colony.

There seems to have been some misunderstanding, however, as about the same number of bees remained clustered on the spot after the swarm was hived, and remained there till Thursday, evidently supporting themselves by foraging in the fields till we took pity on them and allowed them to go to their chosen home.

The same day another investigating committee selected a similar place in a neighbor's house, and the next day one of his neighbor's had a swarm of bees come off and leave. He followed them directly to the spot where the committee had all things in readiness.

What now is the governing, supreme power in the bee-hive? It is certainly not the queen. She is simply the mother bee, and at the time the swarm leaves the hive, may be but an infant of a day. Nor is it the drones, who are born to serve a brief purpose and then murdered.

In the case mentioned there is a search for a location, the communication of intelligence to the parent colony, and uniformity of action on the part of the swarm. Now, who appoints this committee, and in what way is their report received and unanimously adopted and acted upon?

For the American Bee Journal.

The Michigan Bee-Keepers' Convention.

W. Z. HUTCHINSON.

The Michigan State Bee-Keepers' Association held its annual meeting on Dec. 7 and 8, 1887, at East Saginaw, Mich. The bee-keepers did not commence their convention until the afternoon of Dec. 7, and the first session was a joint one with the horticulturists, who began their meeting the day previous. The local bee-keepers had done everything possible to make it pleasant for the visitors. Back of the speaker's stand appeared the words, "Welcome Bee-Keepers," the letters being formed by an arrangement of cakes of bright yellow wax upon a back-ground of gilt and silver paper. This was the work of Mr. John Rey. The Mayor of East Saginaw welcomed the two societies to the city, which brought a prompt response from T. T. Lyon, President of the Horticultural Society.

The convention then proceeded to discuss the following subject:

Do Bees Injure Maturing Fruit?

Prof. A. J. Cook—I do not believe that the bees ever injure sound fruit. They are never attracted to anything that is entirely closed up. A sound grape is sealed up, and the odor cannot escape. When bees attack grapes it is all at once; they cannot commence gradually. When they begin work it is after a warm and sultry time, and the grapes are over-ripe, and the skins crack. I would not state *positively* that bees CANNOT cut open the skin of a sound grape; but it is *contrary to their instinct*. I have placed the tender varieties of grapes where the bees could get them in a time of drouth, and they never touched them. If some of the grapes were pricked, the bees soon cleaned them out, but left the sound ones untouched. I have put the grapes into the hives, and the bees did not open them. I would like to know if any one present, who raises grapes, has been annoyed by bees?

L. A. Pearce—The bees cause annoyance in my vineyard perhaps three years out of five. I may say that they are not always an annoyance. Some years the birds attack the grapes, and set the juice to running, and then the bees would suck the skins dry; but this has been a help, as it enables us to pick out the skins and sell the sound grapes, which could not be done were not the juice cleaned off the sound grapes. The *bees never touch sound grapes*, and cracked fruit is of no market value.

A. G. Gulley—We have found it difficult to pick grapes because the bees are so thick. The Delawares are taken first. The bees will also eat peaches; it may be they were first attacked by the curculio.

Dr. L. C. Whiting—We often *think* that the grapes are not cracked, when they really are; where the grapes touch each other there is often a crack that we do not notice.

A. I. Root—I have raised grapes (Concords) for shade over my hives, and, as the bees have not molested them upon the vines, we have often used this as an argument to prove that the bees do not injure grapes; but as soon as I began selling grapes, picking them off and putting them into baskets, and putting them into the market wagon, then bees were quite annoying. I presume that the picking and handling bruised and cracked some of the grapes, and thus started the bees. As soon as the grapes are picked, we are obliged to put them in the cellar until I am ready to deliver them. The bees have not yet learned to follow the wagon, but they are always ready to meet it upon its return, and lick all the juice from the baskets.

J. H. Robertson—I have a neighbor who has two Delaware vines, and the bees strip them of grapes. We covered two bunches to keep the bees away, and upon examination we found many of the grapes cracked. As soon as uncovered, the bees completely cleaned them up. The grapes were very ripe, and could not be handled without cracking them.

Secretary Garfield—The Secretary of the Eaton County Horticultural Society, said to me: "Charles Garfield, there is no use of talking, the bees do open grapes; I have seen them do it. There was no crack nor anything of the kind; the bee just put his jaws down on the grape and wiggled his nose back and forth, until he wiggled a hole right through the skin of the grape."

L. A. Pearce—I do not b-e-l-i-e-v-e it. (Laughter.) I had some apples that the birds picked into, and the bees followed and sucked the juice. Near the trees were grapes, and the birds picked open many of the grapes. The bees followed here, and sucked the skins dry. They did not molest the sound grapes. Now, if they *could* open the grapes, why didn't they? Some have said that bees will carry the yellows from one peach tree to another. I do not believe this, either. If they did, all the peach trees would be dead in about one year.

A. I. Root—A man living in Medina, Ohio, owned a cider-mill, and the bees annoyed him; but we offered to cover the doors and windows with netting. The mill was so old and full of cracks that it did no good, and we finally offered to build a new mill. This shamed him, and he finally went at it and fixed it himself.

A. M. Gander—What is the size and shape of the opening made by a bee when it opens a grape?

H. D. Cutting—Birds take away about one-third of the grape; wasps make a slit; I cannot say as to bees.

R. L. Taylor—One trouble is, that our neighbors do not understand the nature of bees. We know how to manage so that no trouble arises. I have a neighbor who has a piece of land near my apiary. If he should attempt to work it at some times he would be severely stung. I go and tell him just when he can work it, and how to manage not to be stung, and he has had no trouble. We should instruct our neighbors. If they raise grapes, we should tell them not to let the grapes become over-ripe or they will crack and the bees will eat them up; that it is better for them, and for us, to gather the grapes earlier.

J. H. Robertson—Bees are very useful for the fertilization of blossoms; were it not for their aid, fruit would be scarce. I think that we ought not to find so much fault with the bees for taking a little fruit.

This raised the following question:

How Great are the Benefits of Bees in Promoting the Setting of Fruits?

Prof. Cook—If the bees do not visit flowers, it is pretty good evidence that the bees are not needed. Of all the fruits, strawberries seem to need the bees the least. Strawberries have been covered sufficient to keep away the bees, and yet a good crop secured.

Geo. Peffer, of Wisconsin—If the weather is damp for a long time, bees are needed; if dry, the wind will carry the pollen.

W. R. Fellows—I was in Dakota, the last season, at a place where there are no bees; pumpkin and squash vines were growing luxuriantly, but there were no pumpkins nor squashes. I transferred some of the pollen artificially, and in this way pumpkins and squashes were secured.

The next topic was this:

How does Bee-Keeping Supplement Horticulture, Commercially?

T. F. Bingham—Farmers and horticulturists can produce honey as cheaply as any one. It may not be so nicely put up as that of Mr. Taylor's, or Mr. Heddon's, or some other specialist; but the ordinary public will buy it and eat it, and the honey will be just as good. A young farmer can make bee-keeping more profitable than anything else on the farm.

R. L. Taylor—If the farmer finds bee-keeping the most profitable, he will drop farming for bee-keeping, and thus become a specialist.

E. J. Cook—I am engaged in general farming, and I find that, for the time and money expended, the bees pay me the best.

Dr. L. C. Whiting—The trouble with farmers and horticulturists keeping bees is, that the busy time comes at the same time with both pursuits. I remember riding past a farm about ten o'clock in the morning, when the farm bell began ringing. Just over the fence was a man cultivating corn. I said to him: "Don't you hear the dinner bell?" "Yes," he said, "I hear it. It is about those pesky bees; I've hived them three or four times this morning, and now they may go to ——."

Just here the ladies were called upon, and invited to join in the discussion; and Mrs. Frank Wright read a short letter. She kept bees, not for the pleasure, but for the profit in them; still she did not make one-half as much as some bee-keepers asserted that they did. The trouble was, that she could not control the swarming of the bees; she had not the time necessary to give the bees the care they needed, and lastly, she did not understand marketing the honey so as to get the best prices.

Prof. Cook—If a man does fail, it is not all lost, because the added information broadens the man. Then again, can we not keep bees and not do so much labor in June? Mr. Green, at Chicago, gave us a point in this direction. And right here let me say something about Mr. Heddon. He has received one or two left-handed compliments upon this point, and now I wish to give him a right-handed one. I think he has done more than any other bee-keeper, not only in this country, but in the whole world, to simplify bee-keeping. I know this is strange language, but I believe it.

R. L. Taylor—We are wandering from the subject. The proposition is, that farmers can keep bees and make it profitable, and a few cases have been cited of farmers succeeding; and we have been told that we learn something even if we do fail. The question is not whether the farmers can learn something, but whether they can make it profitable? Dr. Whiting gave a fair illustration of the average farmer. In my own locality several persons have commenced bee-keeping and dropped it.

Wm. H. Barry—The question is, shall bee-keepers raise fruits (commercially), or shall horticulturists produce honey? I should like to raise fruit, but when fruit requires the most care, I am busy with my bees.

The convention then adjourned until 7:30 p.m.

EVENING SESSION.

The convention was called to order at 7:30 p.m., with President Hilton in the chair. The Secretary's report was read and accepted. Then the following members paid their dues:

John Rey. East Saginaw, Mich.
Henry Jones, Chesaning, Mich.
I. S. Huckins, Bay City, Mich.
Joel Gulick, Nelson, Mich.
H. D. Cutting, Clinton, Mich.
A. J. Cook, Agricultural College, Mich.
O. J. Bedell, Kawkawlin, Mich.
R. L. Taylor, Lapeer, Mich.
Martin Gute, Owosso, Mich.
Sam. Willis, St. Charles, Mich.
W. B. Fellows, Jackson, Mich.
A. I. Root, Medina, O.
J. H. Robertson, Pewamo, Mich.
J. A. Pearce, Grand Rapids, Mich.
T. F. Bingham, Abronia, Mich.
Dr. L. C. Whiting, East Saginaw, Mich.
W. D. Soper, Jackson, Mich.
E. J. Cook, Owosso, Mich.
Geo. W. Gillett, Hemlock City, Mich.
Wm. Spedding, Clifford, Mich.
Wm. H. Barry, Shelby, Mich.
A. M. Gander, Adrian, Mich.
J. B. Wilcox, Manistee, Mich.
W. M. Freeman, Flushing, Mich.
W. Z. Hutchinson, Flint, Mich.
Geo. W. Sortes, Kingston, Mich.
Geo. E. Hilton, Fremont, Mich.

The following lady members were enrolled:

Mrs. Reinhard, East Saginaw, Mich.
Mrs. Myra L. Parsons, Linwood, Mich.
Mrs. Frank Wright, Otter Lake, Mich.
Mrs. I. S. Huckins, Bay City, Mich.
Mrs. John Rey, East Saginaw, Mich.
Mrs. O. J. Bedell, Kawkawlin, Mich.
Mrs. R. L. Taylor, Lapeer, Mich.
Miss Lucy A. Wilkins, Farwell, Mich.

The convention next listened to

The President's Address.

We have assembled here with our friends, the horticulturists, at our 21st annual convention, to consider that which pertains to the best interests of our pursuit. I shall not occupy your time with an exhaustive address, for the programme is very complete, and our time is short at best to consider the important subjects which will be presented.

I am here as a member of this society to assist as best I may in throwing light on the topics brought before us. I take it as an expression of good-will and great generosity in those who have arranged the preliminaries of these meetings, that everything for the comfort of us all has been so amply provided, and that all arrangements are so thorough and complete; let us see to it that we endeavor to perform our part in as faithful a manner as our committee have done.

It is with pleasure and pride that I congratulate this Society on attaining its majority, and while the last year of our second decade has been discouraging from one point of view, from another, we start on our third with most flattering prospects. The dearth of honey has not only established paying prices, but has sounded the death-knell of the "Wiley lie," and all advocates of "manufactured honey," and to me the prospects were never brighter.

Yes, we have reached a crisis in the history of bee-keeping which must be acknowledged to be of national importance. The question no longer remains, "Shall we commence," or "Shall those of us who are already engaged in it continue?" I now say, without fear of successful contradiction, that the possibilities in bee-keeping have not yet been reached.

Need I say less of horticulture? In the words of Mr. Eugene Secor, of Forest City, Iowa, I would say: "The true horticulturist, like the successful bee-keeper, is an enthusiast. I need not remind any one who plants trees and grows fruits, of the genuine pleasure that thrills the soul when nature responds to his intelligence, thought and careful direction? He lives in a world of his own. He needs no other intoxicant to complete his happiness. Horticulture is one of the fine arts; it requires the skill of a master. It is just as impossible for the thoughtless, brainless clod-hopper to reach the highest round in the ladder in propagating fruit, as it is for him to appreciate it after it is grown. But after all man's skill in planting, after ransacking the earth for improved varieties, after propagating, grafting and hybridizing, he must rely mainly upon Nature's methods of fructification. The favoring winds and industrious bees are needed to fertilize the bloom to insure a harvest of fruit. As a means of accomplishing this end, there is no question but that the bee is of great service to the grower of fruits; no other insect is multiplied in such vast numbers so early in the spring when their agency is so much needed to fertilize the orchards and small fruits.

"If the winds were the only means of carrying the pollen from flower to flower, how often would perfect fertilization fail from too much or too little wind during the brief opportunity when the bursting buds are sighing for the life-giving dust from the neighboring flowers.

"Not only is honey provided in the delicate chalices to entice them, but the pollen so essential to the plant (and just as essential to the bee in furnishing the proper food for its young), is placed in close proximity to the nectar, so that in getting either, the bee is unwittingly carrying the dust from flower to flower, or working out the wise plans of Providence as relates to plants, and catering to man's pleasurable taste at the same time. The drop of honey is placed then in the flower not because it is needed to perfect the flower or fruit, but to tempt the bee to brush its hairy legs against anthers, and distribute the golden dust. So the bee introduces itself at once to the horticulturist as his friend. The latter ought to meet it half way and acknowledge its two-fold service. It does him a service while on its daily rounds in search of food for itself and young, and again by storing up for his benefit the liquid sweets which it does not need itself, and which ungathered vanish like the morning dew, like the manna which the Israelites ate of—the ungathered portions melted 'when the sun waxed hot.'

"What, then, is there to hinder these two vocations from going hand in hand, since each is helpful to the other? They ought at least to be on friendly terms. Each furnishes inducements for the other to exist.

"But, aside from these considerations of the healthful diversions and pleasing variety of mind, and returning again to the utilitarian side of the question, the horticulturist will find it profitable to pursue the study and practice of this delightful branch of entomology. The habits and instincts of this 'pattern of industry' are ever interesting, and the business quite as remunerative as raising tender fruits in an 'iron-clad climate.' This pursuit, once entered upon, possesses charms of its own. No other stimulus is needed to follow it than the fascination of its own creations.

"A great deal has been said about bees injuring fruit—some fruit-growers having charged that they puncture the ripe grapes, suck the juice and destroy the crop. But from the physical structure of the bee this is said to be impossible by scientific entomologists. It has no jaws like the hornet; it is made to suck, not to bite; and on close observation, and after repeated experiments, it has been found that where bees are discovered helping themselves to ripe fruit, that the skins had been ruptured by the weather or from over-ripeness, or that hornets or wasps, or birds, had first been the depredators. After the skin has been broken from any cause, if there is a scarcity of honey, the bees, always anxious to be doing something, will endeavor to get a share of the plunder. Therefore, as to bees injuring fruit, I, as their attorney, shall claim to the jury that the charge is not proven.

"In dismissing this subject, which to the lover of fruits, flowers and bees is always a source of infinite delight, I cannot refrain from quoting a few lines from 'The Planting of the Apple Tree,' by that venerable sylvan poet, our own Bryant, who saw so much of future hope and promise as he sifted the soft mould about its tiny rootlets:

What plant we in this apple tree?
Sweets for a hundred flowery springs
To load the May-winds' restless wings;
When from the orchard row he pours
Its fragrance at our open doors
A world of blossom for the bee."

GEO. E. HILTON.

R. L. Taylor—Now this gives Prof. Cook a chance to say a word that he is bursting to say.

Prof. Cook—In brief, I will say that bees are needed all over the country for the fertilization of blossoms; that the study of rural pursuits helps to make home pleasant, and binds together the family, and finally it may be made a source of profit. I may be mistaken, but I thoroughly believe in bee-keeping on the farm.

Excessive Swarming of Bees.

Mrs. Wright had had considerable trouble with excessive swarming, and wished to know how to avoid it.

Dr. L. C. Whiting—I have prevented it by extracting 4 or 5 pounds of honey from the brood-nest, thus giving the queen room to lay. I do this as often as necessary.

R. L. Taylor—I do not think that this plan will work generally. One year I produced extracted honey, and the bees swarmed considerably. If we are to have *any* swarms, we may just as well have many as few. The object in preventing swarming is, that we may avoid having a man with the bees all of the time; and if part of the colonies are to swarm, they may as well all swarm. Another objection to the Doctor's plan is, that it involves too much labor. It is this kind of labor that makes cost in producing honey. Another season I shall try the following plan: Use a drone-trap to catch the queen, and return the swarm without the queen. Just before the young queens hatch, cut out all the cells but one.

Dr. Whiting—Now I am going to "pick a hole" in that. Your colony is without a laying queen for nearly three weeks, and the loss is equal to a swarm of bees.

R. L. Taylor—Now "I am going to pick a hole in *that*." In the first place there is not a loss equal to a swarm of bees, and in the next place, such a loss of bees would be an *advantage*. For a few days before a colony swarms, the queen reduces her egg-producing capacity, takes a rest, and becomes light so that she can fly. After the bees swarm it is several days before she resumes laying to any great extent; hence the loss in bees is not so great as might be supposed; and, furthermore, all bees produced that do not come upon the stage until the harvest is over, are produced at a loss.

The following committees were now appointed:

On Resolutions—R. L. Taylor, A. J. Cook, and W. Z. Hutchinson.

On Exhibits—J. A. Pearce, A. I. Root and J. H. Robertson.

The following is a copy of a letter read by President Hilton, being a reply to a letter addressed by him to the Commissioner of Agriculture, in regard to apicultural statistics, as suggested at the recent Chicago convention. The letter is as follows:

U.S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C., Nov. 26, 1887.

Geo. E. Hilton, Fremont, Mich., President of Michigan Bee-Keepers' Association.

SIR:—Your letter of the 21st inst., addressed to the Commissioner of Agriculture, has been referred to me for answer. Our monthly reports are made up from information gathered from a corps of crop correspondents in each agricultural county in the United States, and with such a wide range it is only practicable for us to report regularly upon the leading farm products. We frequently make outside investigations relative to the condition and extent of special rural industries, and realizing the importance of bee-keeping, would be glad to give it the attention it deserves. Our regular correspondents, however, are ordinary farmers, and but few would be able to give any information relative to the present condition of apiculture. It would be necessary to send directly to those interested in the industry. Can you furnish me, or suggest where I might obtain, a list of bee-keepers, comprising one or two names in each county where the industry is of any prominence, and also give the points which, in your opinion, such an investigation should cover? Very respectfully,

J. R. DODGE, *Statistician.*

The convention then adjourned until 9 a.m. on Thursday.

THE SECOND DAY.

The convention was called to order by President Hilton at 9 a.m.

From the Question-Box was taken the following: "How shall spring dwindling be prevented where the wind blows in from the lake over a bank of ice?"

J. H. Robertson—Move to some other locality.

R. L. Taylor—I do not think that spring dwindling is the result of cold weather in the spring, but of imperfect wintering.

Shade for the Bees.

Prof. Cook—I would advise the use of a shade-board everytime; and I say this after having tried about everything that has been recommended. I would like a high trimmed grove for comfort.

John Rey—Sunflowers.

R. L. Taylor—Shade-boards.

President Hilton—How about the swarms clustering in high trees?

Prof. Cook—If the queens' wings are clipped, as they *ought* to be, there will be no objection to the bees clustering where they please.

President Hilton—I tried grapevines for shade, and they proved a nuisance. In this latitude it is doubtful if shade is needed.

David Shangle — When I began keeping bees, some of my hives were painted dark, and others white. The combs melted down in some of the dark ones, but never in the white ones. I have painted the dark ones white, and I do not use shade, and I do not think that it is necessary.

J. H. Robertson—My yard is all shaded by high trees, and I like a good shade.

R. L. Taylor—There are only a few days in the summer when shade is needed, and when it *is* needed, I know of nothing better than a shade board.

W. Z. Hutchinson—Who can say from experience that more or less honey will be secured by shading the hives?

R. L. Taylor—This is a pretty fine point. If one-half of the hives were shaded, the bees might suffer for *want of the sunshine* at some particular time, and those without shade suffer from the sunshine at some other time; and thus each half of the apiary store an equal amount of honey. As I have already said, shade is needed only a few days, and even then the only trouble is that the bees are driven out of the supers.

T. F. Bingham—I do not shade my hives, and I have never had a comb melted down. The entrances extend the whole length of the hive—22 inches.

Mr. R. L. Taylor, of Lapeer, Mich., then read an essay, entitled,

Comb Honey vs. Extracted Honey.

The advantages to the apiarist of producing either kind of honey, rather than the other, depends upon his tastes and circumstances. Our choice in all the ordinary, not to say the most momentous things in life, is controlled largely by our tastes; and this controlling influence will generally be felt when we come to decide whether we shall make it our business to produce comb honey or extracted honey, and it is highly proper that this should be so.

Every one does that best which he likes best. I like best the production of comb honey, and my mind involuntarily pictures to itself superior neatness and comfort, and greater ease and more equable division of the labor of the season among the days, as appertaining to this branch; but while I continue to like this best, I must confess that when I sit down and listen calmly to reason, it is difficult to find any great difference in these respects. So there is no accounting for tastes; nevertheless they should be consulted, for though they cannot be voluntarily created, yet they are largely formed in response to the necessities of existing conditions; and it is these conditions which in the absence of a decided bias must be consulted in order to determine whether it is better for any particular individual to devote his apiary to the production of comb honey or of extracted honey.

Now what these conditions are, it is of interest to all apiarists to know; and as I view it, the chief among them are the following, namely: Existing appliances, the quality of the honey produced, the season when it is obtained, and the character of the home market.

Of course, if an apiarist is supplied with the appliances necessary for the advantageous production, and the care of comb honey, he should be very slow to incur the expense incident to a complete change of these for those adapted to the production of extracted honey, and *vice versa.*

Secondly, choice in the matter should often be influenced by the quality of the honey produced. It is seldom best to undertake the production of comb honey unless it is to be white and of good quality. Dark comb honey is almost always a drug in the market, and sells generally at a very low price—so low that when the increased amount of extracted honey that can be produced, is taken into account, the latter will be found to bring easily the more money.

Next, it is to be remembered that in the early months of the season the bees produce wax freely, and work it readily, while later in the season they are rather slow to do either; and the resulting fact is, that with the otherwise equal opportunities they will usually store much more honey during the first part of the season than during the last, if they are obliged to build the comb in which to store it; so it will generally be found more profitable to use combs for extracting in which to secure the fall nectar.

Lastly, the character of the home market is to be considered. I think it is safe to say that if three-fifths of the price of comb honey can be obtained for extracted honey, the production of the latter is the more profitable in all circumstances; and there are many home markets in which nearly or quite as much is obtained for the latter as for the former. Those who are blessed with such a market should cultivate it assiduously, and keep it supplied constantly with extracted honey of the finest quality that can be produced.

It is to be noted, also, that generally the man makes the market. Some have a remarkable faculty in this way. They never have any difficulty in making a market for anything that they have to sell. Such should make the most of this talent, and thus not only greatly benefit themselves, but also to a considerable extent relieve the markets of the larger cities.

R. L. TAYLOR.

T. F. Bingham—I should say for a home market, extracted honey; to send to Chicago, or for merchants to handle, comb honey is probably the most profitable.

Prof. Cook—How much more extracted than comb honey can you produce, Mr. Taylor?

R. L. Taylor—It depends upon how the honey is produced. If left upon the hive until the season is over, perhaps 50 per cent. There is also another point that is usually lost sight of, viz: Colonies worked for extracted honey become more populous. For instance, if one-half of an apiary is worked for extracted honey, and the other half for comb honey, those colonies worked for extracted honey will become the most populous; and it should be expected that they will gather more honey.

T. F. Bingham—It may not be generally known that honey stored and ripened by a strong colony is of superior quality.

Using Honey in Cooking.

T. F. Bingham—Honey cannot be successfully used in cooking; especially in making cakes or anything that must be baked. The great heat necessary burns the honey and destroys the flavor, and spices must be used to cover up the burnt flavor.

Mrs. R. L. Taylor—Is it white?

President Hilton—Not so white as some cake.

Mrs. Taylor—Yes, but Mr. Hilton, is it *white?*

President Hilton—Not so white as sponge cake.

Mrs. Taylor—Is it yellow?

President Hilton—No.

Mrs. Taylor—We make a coffee cake with honey, but it is neither white, yellow, nor sweet; it is brown.

Prof. Cook—We had some peculiar honey about three years ago. I presume you all know what it was without my telling you; it was miserable stuff. We let a baker in Lansing try some of it in making cookies, telling him what it was, and he found that it answered just as well as any honey, and he bought all we had.

T. F. Bingham—By using steam in cooking food, honey can be used.

A. I. Root—We have been getting some very superior cakes made with honey. Their manufacture is a secret.

On motion of Prof. Cook, it was voted that a committee be appointed to confer with the Government in regard to its buying and distributing the Chapman honey-plant seed.

The convention then adjourned to meet at 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m., with President Hilton in the chair.

It was voted that the Association hold its next annual meeting at Jackson, Mich., the time of meeting to be decided by the officers.

The election of officers resulted in the re-election of the old officers, viz : President, Geo. E. Hilton, of Fremont; Secretary, H. D. Cutting, of Clinton; and Treasurer, M. H. Hunt, of Bell Branch.

Prof. A. J. Cook at this time delivered a lecture upon

The Anatomy of Bees.

He described the glandular system in particular. One pair of glands furnishes the saliva, and another the food for the larvæ. The drones do not have this gland, and it is only rudimentary in the queen, which shows that she once nursed the larvæ, as the queen bumble-bee now does in the spring. The change that has taken place in the honey-bee in this respect, is another proof of the correctness of the evolution theory. This gland is very deficient in old worker bees, which shows that nursing is not their business. It is the food furnished by these glands that the workers feed the queen. If she had to eat honey and pollen, and digest it herself, she could never lay twice her weight in eggs in one day. Another set of glands furnishes a fluid that changes the character of the nectar gathered, changes the cane-sugar to glucose. This glucose may be chemically the same as commercial glucose, but there are other tests that show it to be different.

Mr. T. F. Bingham, of Abronia, Mich., then read an essay on,

How to Improve Our Bees.

To the casual observer, as also to the young student, this subject is one of almost illimitable scope, presenting vast possibilities; and while considered as in a certain sense parallel and analogous to the improvements realized by the breeders of thoroughbred horses, cattle and sheep, the almost certain realization of the enthusiastic bee-keeper's brightest dream lends a perpetual charm. Many presumably well-balanced and conservative bee-keepers have devoted much time, money and practical endeavor to the ever charming and paramount wish to enhance the practical economic value of the honey-bee. While the success so far attained in no way narrows or circumscribes the field of enthusiastic vision, the practical results attained serve to modify in a certain sense the immediate hope of marked improvement.

It would not be safe to say that no gain had as yet been made in the direction of color, disposition and industrial value of bees. Yet it is strictly safe to venture the assertion that, while we have many modifications and crosses of races, these modifications do not in a practical sense justify the hope or stimulate the belief that material and marked improvements are possible from the mixing of races of honey-bees.

If, as now seems probable in the near future, those bee-keepers wishing to realize the best home market, and the surest returns for their product, should adopt the plan of part comb and part extracted honey, little effort will, in the light of past successes, be bestowed upon experiments to improve any mixture of Italian bees, whose queen and workers will allow of the rapid manipulation of the combs and hive without running.

However much may have been hoped and dreamed in regard to the Utopian honey-bee, "Apis Americana," one great fact, practical and demonstrable, calls us back from Wonderland, and forces the conviction that, while our standard of excellence is the Ligurian or Italian bee and her near crosses, "Apis Americana" will needs have more than a pedigree to install her in the heart of the practical bee-keeper.

T. F. BINOHAM.

After the reading of the above essay, it was discussed as follows :

Prof. Cook—The two great points upon which we need to work are, to improve our bees and our honey-plants.

L. C. Whiting—I once had a colony that built but few brace-combs; by rearing queens from this queen, I secured a strain of bees that built almost no brace-combs at all.

Mr. John Rey, of East Saginaw, Mich., then read an essay on,

Marketing Honey at Home.

I will give only my own experience in a home market, having never sent any honey to outside markets, for the simple reason that I have found ready sales in my home market.

Advertising is the life of trade, and the same holds good in bee-keeping. Up to four years ago I could not always dispose of the honey that I produced the season before, and I would have some old honey on hand when new honey was coming in. I found that something must be done in order to get my honey before the consumer, and I adopted the plan of advertising. I did it in this way :

I noticed advertised in the AMERICAN BEE JOURNAL, a leaflet called "Why Eat Honey," and also a pamphlet on "Honey as Food and Medicine." I thought that would be a good way to work up a home market; so I sent for several hundred copies of each, and with every package of honey I sold, I would give one of these "leaflets," and at the same time I would stamp my name on the leaflets, and for the comb honey I would stamp it on the sections. For extracted honey I would always label the glasses. I was surprised to see my honey sell so fast. My honey was all gone before the new honey was coming in, and I had to do something in order to hold my trade, not having been able since to produce honey enough from my own bees to supply my home market; so I have to buy honey to fill my orders until my new honey is ready the following season.

In buying honey I always make it a point to buy it from my neighbor bee-keepers, providing that I can get it at some profit; of course the profit is small. They keep posted on the market price, and they expect to get nearly as much for their honey from me as I would get myself. But even so, if I get their honey at a small profit, it takes that honey off the market, and gives me a chance to bring mine on, with the prospect of better prices in the future.

I have often thought that if I had enough money, I would buy all the honey from my neighbor bee-keepers, and from farmers that produce little honey to sell. For instance, in Saginaw county I would start a honey house, and the producer of honey would bring his honey to me, and the retailer and consumer would look to me for their honey. But being a poor man, I will have to drop that idea, and do the best I can; but if such a live man could be found in every county throughout the country, with plenty of money and experience in the marketing of honey, I think that bee-keepers at large would get better prices for their honey.

Why, the farmer knows in the morning before he starts to the city with a load of wheat, what he is going to receive for his wheat, by seeing the prices in the daily market reports. He takes his wheat to the flour mills, gets his cash, and returns home happy. The retail grocer, and the consumer, get their flour from the flour mills; and if the producer of honey could bring his honey to the "honey man," as you would call him, why, the retail grocer and consumer would look to the honey man for their honey.

As to putting up honey in marketable shape, I have nothing new to offer to the experienced honey producer. It is from them that I have taken my lesson—by attending the bee-conventions, and reading different bee-books. But to the inexperienced bee-keeper I would say : Never let a section of honey go out without your name on the section; or if it is extracted honey, always put up the nicest and best honey in glass packages, and put your name on it, on a nice label. By putting up honey in glass jars, the consumer can always see what he is buying, and, besides, the jar is of some use after the honey is consumed.

JOHN REY.

After its reading, Mr. Rey explained that he prepared it hurriedly, and neglected to mention that he went among the grocers and bought up wax at 25 cents per pound, melted it and molded it in small cakes, and then sold it back to the dealers for 30 cents per pound, the dealers retailing it for 5 cents a cake, eleven cakes weighing a pound.

A. I. Root—I wish to say for the encouragement of Mr. Rey, that I have never seen finer displays of honey in stores than he has here in the groceries. I wish we could have them photographed.

T. F. Bingham—The best use that can be made of poor honey is to make it into vinegar. A pound of honey will make a gallon of vinegar. At about 45° to 50° of temperature will make vinegar.

The committee on exhibits reported the following :

Eden's comb-foundation fastener, Eastwood, Ont.

Betsinger's crate with wire-cloth separators, and paste-board shipping boxes.

Bingham's smoker and honey knife.

W. Z. Hutchinson, case of very fine comb honey.

President Hilton, four samples of extracted honey—basswood, maple, willow-herb and raspberry.

H. D. Cutting, fine collection of extracted honey, all under the same treatment, one part being candied and the other not ; also an entrance feeder.

Mr. Soper, sections, and Van Deusen's flat-bottom foundation.

Dr. L. C. Whiting, sample of very fine honey vinegar.

Sections and separators from the Berlin Fruit-Box Company.

Dr. Tinker, sections, perforated-zinc, and a queen-cage.

O. J. Hetherington, machine for putting together 4-piece sections.

John Rey, fine collection of extracted honey ; also solar wax-extractor, steam extractor, Stanley's honey extractor with uncapping-can attached ; also foot-press foundation-fastener.

The committee on resolutions then reported the following, which were unanimously adopted :

Resolved, That the thanks of this convention are hereby gratefully tendered the business men of East Saginaw, for the generous and agreeable way in which they have ministered to our entertainment.

Resolved, That we heartily appreciate and hereby express our gratitude to the officials of this city, for the hearty welcome extended, and for the hall provided us for our sessions.

Resolved, That we return our thanks to the managers of the Sherman House, for the bountiful way in which they have provided for our physical wants, and for the reduction in rates granted.

Resolved, That our thanks are due, and are hereby extended to resident bee-keepers, for their successful efforts to render our sessions pleasant and profitable.

The convention then adjourned to meet at Jackson, Mich., next year, at the call of the executive committee.

Flint, Mich.

Only One Book of History with every club subscription to the AMERICAN BEE JOURNAL and New York *World*, is all that we can offer. The book is worth the whole money to be sent, and then you may consider the other two papers as a free gift.

Eastern Farmer.

A Review of the Past Season.

SEASONABLE HINTS.

The honey season is over; the flowers are faded, and their sweet perfume no longer pervades the air, and the cheerful hum of the busy bee can no longer be heard, as the chilly autumn winds keep them within the hive, and oblige them to seek the sustaining warmth of the cluster, which has been made as comfortable as chaff cushions, dried leaves or woollen mats can make them, and if they are to be left on the summer stands they should be let "severely alone," for awhile at least.

Now, as there is nothing more we can do for our pets, let us with a retrospective view, think over and profit by the many mistakes we have made during the past season. Only by the past can we judge of the future. While some of us hope we may never see another season like the one just past, yet many things we have learned that if jotted down will be of great benefit to us hereafter. And the many mistakes we have made, if we acknowledge them as such, and carefully consider what we should have done, will be of inestimable value in our future manipulations.

If, for instance, we did not have hives ready when the bees swarmed, and they were left hanging in a tree until a box could be thrown together, that experience ought to be remembered during the leisure hours this winter, and a lot of hives prepared for future use.

If for want of empty frames the queen had no cells in which to deposit eggs, and the numbers gradually diminished until there were not enough left to warm the hive sufficiently to hatch an egg, we should own it as a fault and not blame the bees or the queen.

Did we put on the sections soon enough? Did we think when we saw a dead queen in front of a hive that she was probably killed the day before, when we opened the hive at an unseasonable hour, when the cold wind was blowing directly on the frames?

Where there is an effect there is certainly a cause; and by understanding the cause we may change the effect to our own advantage. There is no "witch work" about bee-keeping, nor is there much in *luck*.

If we allow our bees to go into winter quarters with no young bees, or without sufficient stores, or proper protection, and they die of old age or spring dwindling, we call it poor luck.

If we knew a farmer who wintered his stock in an unventilated barn cellar, and fed them only on straw, we would not call it poor luck if they were not fat in the spring. The term luck is as applicable to bee-keeping as to the case of the stock, and no more, with perhaps the exception of the pasturage, as some of us are more fortunate in having more indigenous honey-producing plants in our district than are others.

Now is the time to make our plans for the next year's work. Shall we run for extracted or comb honey? If for the latter, then before spring the "sections" should be got ready, put together all ready for the starters, which can be put in just before they are wanted. If for extracted, an extra number of "frames" will be required. They can be nailed up and wired ; so a great deal of the extra work about the apiary may be ready for the rush of the honey season ; and a book of mistakes could be kept to good advantage, in which to put down all errors made, and important things learned by experience ; also a book of wants in which to write any handy thing needed in our work that can be constructed at our leisure, and will save a great deal of time when we are in a hurry.

Local Convention Directory.

1888. *Time and place of Meeting.*

Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10.—Cortland Union, at Cortland, N. Y.
R. L. Weaver, Sec., Dryden, N. Y.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 10, 11.—Ohio State, at Columbus, Ohio.
Frank A. Eaton, Sec., Bluffton, O.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 17, 18.—N.W. Ills. & S. W. Wis., at Rockford, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

Jan. 18, 19.—Vermont State, at Burlington, Vt.
R. H. Holmes, Sec., Shoreham, Vt.

Jan. 17-19.—New York State, at Utica, N. Y.
G. H. Knickerbocker, Sec., Pine Plains, N. Y.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Packing for Bees in Winter, etc.—James Holden, Marietta, Ohio, on Dec. 8, 1887, writes :

I think that the best cushions for protecting bees in winter can be made from some suitable cloth filled with the "ground cork" that white grapes are packed in from foreign countries ; as there is no odor from it, it never gets musty, and can be had very cheap from fruit stores. Very little honey was gathered here this year. What is the advantage to bees going into the hives the longest way of the hive, over the entrance in the narrow way of the hive ; or in their going into the hives lengthwise of the brood-frames, or crosswise of them ?

[The advantage of the brood-frames running lengthwise of the brood-chamber is that the ends of the frames come to the entrance, thereby giving the bees easy and direct access to any comb desired.—ED.]

Sour and Rusty Honey.—A. F. Wheeler, Rossville,♂ Iowa, on Dec. 7, 1887, says:

I got about 100 pounds of surplus honey from 9 colonies, spring count, and increased them to 16 colonies. Last year I got 450 pounds from the same number of colonies. I would like to know the cause of the following effects: 1. In one colony the honey in the surplus boxes smelled sour, looked frothy, and some of the cells were drawn out longer than the general surface. 2. On the surface of some of the sections there appeared rusty spots, in which the cell-caps were sunken in some. Please state the cause, and also the remedy.

[I cannot tell the cause at this range. It is from a local cause, and no disease. The cure is this: Melt up the whole mass, evaporating the honey, and skimming off the wax. Put the combs in a pan in an oven, and leave one door open. Keep the temperature at about 100° to 110°, till all is liquid, and then set it to one side till the waxen surface is cool; and while the honey is still warm, tap the wax surface, tip up the pan, and leave it until all drains out clean. This is the way we treat cappings, and in this way we save every particle of wax and honey, and both are of the best quality.—JAMES HEDDON.]

Bees in Good Condition.—O. L. Hershiser, Big Tree Corners,⟜ N. Y., on Dec. 12, 1887, says:

As far as can be judged from appearances thus far, bees are in good condition in this locality. They have had opportunity to fly nearly every week, and colonies seem to be strong. In this section bees are for the most part wintered on the summer stands, and usually very successfully when chaff hives are used. Last winter, during two warm, windy days, with a very damp atmosphere, the bees flew profusely, and nearly one-third of them were chilled and unable to return to their hives. The result was heavy spring dwindling, by which fully one-half of some apiaries perished. Those having bees in the cellar did not suffer from this cause.

Plenty of Stores and Young Bees.—W. Mason, of Fillmore,⟜ Ind., on Dec. 12, 1887, writes:

The long-continued drouth was broken here the last of November, which made all hearts glad. I stored my bees in the bee-house on Nov. 19, it being the first cold spell. They were in fair condition, with plenty of stores, excepting 3 or 4 colonies which were rather light, and will have to be fed later in the winter, or in early spring. We had a few light showers in August, that started the bees to breeding, and leaving them well stocked with young bees. In October we had the largest flow of "honey-dew" ever known in this country, on a few kinds of timber, such as oak, hickory and elm, and it was almost as fair as white clover honey. If the winter should prove a very cold one, I shall have my fears about successfully wintering; but if the winter proves to be mild, so we can give our bees an occasional flight, then they may winter through all right.

Poor Season for Bees.—Thos. W. Weaver, Edinburg,⊙ Ind., on Dec. 10, 1887, writes:

I have kept bees near Edinburg for five years, and the season of 1887 has been the poorest that I have experienced. From 20 colonies in fair condition in the spring, I have taken about 300 pounds of comb honey, and increased them to 32 colonies. I had to feed them for winter. I have packed them on the summer stands. I owe many thanks to the AMERICAN BEE JOURNAL for my success.

Poor Season, but Not Discouraged.—S. H. Moss, Colchester,⟜ Ills., on Dec. 13, 1887, says:

My report for 1887 is as follows: Spring count, 80 colonies, and this fall I have the same number. Of comb honey in finished sections, I have 100 pounds, and in unfinished sections, but cut out, 300 pounds. I fed to hybrid bees, for winter stores, 300 pounds of sugar. The poor season was on account of the drouth. But I am not discouraged yet.

Small Yield of Honey.—George Shafer, Neoga,⊸ Ills., writes:

My bees did nothing the past season, the yield from 30 colonies being only 300 lbs. of extracted honey. It has been the worst failure that I ever knew.

No Surplus from Black Bees.—A. E. Maley, Auburn,↘ Nebr., on Dec. 14, 1887, says:

The spring of 1887 was very favorable here, until July. My bees swarmed early. Buckwheat yielded well, but I had no surplus honey from the black bees. My bees are still outdoors, and are not consuming much stores. The dry atmosphere of Nebraska will insure safe wintering.

Securing Proper Ventilation.—G. A. Adams, Perrysville,♂ O., on Dec. 10, 1887, writes:

Bee-keepers ought to know more than they do about ventilation. The bees ventilate as all ventilating should be done—at the bottom! No open drafts upon their heads are allowed, if they can prevent it. The used-up air is expelled at the bottom, and new air taken at the same place. "Music Hall" in Cleveland holds 5,000 people, and the hot air comes from below, and the cold or exhausted air is drawn out *by heat* through the floor; that is the true, scientific method of ventilating. It gives equal temperatures at equal heights in any building where it is properly applied. I am glad Mrs. Harrison has touched on the subject. At the Detroit convention, in 1885, I could not stay in the room, for want of air.

Mustard for Bees.—W. H. Stewart, Kimball,♀ Dak., asks:

I want to raise mustard for bees and for seed. What time of the year is best to sow the seed?

[It may be sown very early in the spring in shallow drills, wide enough for the cultivator, using from 6 to 10 pounds per acre; or it may be sown broadcast, 25 pounds to the acre. For seed it should not be sown later than July 1. When ripe it does not shell out by the wind, and may be harvested at leisure.—ED.]

Honey Trade in Philadelphia.—Arthur Todd, Philadelphia,↘ Pa., on Dec. 9, 1887, writes:

With an average temperature of 58° Fahr., and the bees flying every day, the sales of honey by groceries in this city is, and has been very poor ever since the opening of the season. Grocers have accepted the advance in prices, and for good honey they have not grumbled to pay good prices, viz: 18 to 20 cents. The possibility of lower prices now comes as a consequence of the non-sale of the honey so purchased; altogether owing to the fact that cold weather and the consumption of honey are concomitant.

Convention Notices.

☞ The next meeting of the Nebraska State Bee-Keepers' Association will be held on Jan. 11, 1888, at Lincoln, Nebr.

HENRY PATTERSON, *Sec.*

The annual convention of the Vermont State Bee-Keepers' Association will be held at the Van Ness House, in Burlington, Vt., on the Jan. 18 and 19, 1888.

R. H. HOLMES, *Sec.*

☞ The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ontario, on Tuesday and Wednesday, Jan. 10 and 11, 1888.

W. COUSE, *Sec.*

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice.

J. W. BUCHANAN, *Sec.*

☞ The fifth annual Ohio State Bee-keepers' Convention will be held in the United States Hotel, corner High and Town Sts., Columbus, O., on Jan. 10 and 11, 1888. An interesting programme will be arranged. Reduced rates at the hotel.

FRANK A. EATON, *Sec.*

☞ The Cortland Union Bee-Keepers' Association will hold their annual meeting at Cortland, N. Y., on Tuesday, Jan. 10, 1888, for the election of officers and to transact such business as may come before the meeting. All bee-keepers are invited.

R. L. WEAVER, *Sec.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited.

H. M. SEELEY, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southeastern Wisconsin Bee-Keepers' Association will be held in G. A. R. Hall, corner of State & North Main Sts., in Rockford, Ills., on Jan. 17 and 18, 1888. Dr. Miller will be present, and a good programme is in course of preparation.

D. A. FULLER, *Sec.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

Issued every Wednesday by
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO ILL.
At One Dollar a Year.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We receive letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

We will Present Webster's Dictionary (pocket edition), and send it by mail, post-paid, for two subscribers with $2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

☞ **Sample Copies** of the Bee Journal will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office or we will send them all to the agent.

Money Orders can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

Simmins' Non-Swarming System.—We have received another shipment of these books, and have made such favorable terms, that we will now club them with the Bee Journal for one year, both postpaid, for **$1.25**. We can supply all orders by **return mail.** The subscription to the Bee Journal can be for next year, this year, or may begin anew at any time.

A Valuable Book Given Away.—We have made arrangements by which we can supply the American Bee Journal and the New York *World*—both weekly—for one year, for $2.10, and **present** the subscriber with **one of these books,** bound in Leatherette Free Calf:

History of the United States—from 432 to 1887.—320 pages.—Price, $2.00.

History of England—from before the Christian era to 1887.—Price, $2.00.

Everybody's Book—a treasury of useful knowledge.—410 pages.—Price, $2.00.

The extra 10 cents is for postage on the book, which must be selected by the subscriber at the time of sending the subscription, and cannot be afterwards exchanged. The book selected will be mailed in a card-board case, at the subscriber's risk; if lost it cannot be replaced. Be sure to write your name, post-office, county and State plainly, and then the risk of loss is *very* small. The subscriptions can commence at any time. Remember, the amount is **$2.10** for both papers, and the Book and postage.

Enameled Cloth for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, $2.25; 10 pieces, $20.00; if ordered by mail, send 15 cents per yard extra for postage.

Preserve your Papers for reference. If you have no **BINDER** we will mail you one for 60 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the Bee Journal.

We have a large quantity of CHOICE WHITE **EXTRACTED HONEY,** in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at **10 cents** per lb. Orders solicited.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We are sometimes asked who our authorized agents are. Every subscriber is such an agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope every subscriber will do his or her best to double our list of subscribers.

We pay 20 cents per pound, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

We have a few Sets of the Bee Journal for the present year, and can fill orders until further notice, for all the numbers from the first of last January. New subscribers desiring these **back numbers,** will please to state it plainly, or they will not be sent.

OUR CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 45
Bee-Keepers' Guide	1 50	1 40
The Apiculturist	2 00	1 80
Canadian Bee Journal	2 00	1 80
The 6 above-named papers	5 00	4 50
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 30
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Iowa Homestead	2 00	1 90

One yearly subscription for the American Bee Journal must be ordered with each paper or book, in order to take advantage of the prices named in the last column.

To All New Subscribers for 1888 we will present the remaining numbers of 1887—over a year's subscription to the oldest and best bee-paper in America for **only $1.00!** No investment will repay such excellent dividends to a bee-keeper, as a year's subscription to the American Bee Journal. Subscribe *now*, and get the rest of the numbers of this year **free**. The sooner you subscribe the more you will receive for your money.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the Bee Journal. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the Bee Journal to any one sending us three subscriptions—with $3.00—direct to this office. **It will pay** any one to devote a few hours, to get subscribers.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the Bee Journal, and will send two or more free of cost to any one who will use them, and try to get up a club.

We Supply Chapman Honey-Plant seed at the following prices: One ounce, 40 cts; 4 ounces, $1; ½ pound, $1.75; 1 lb., $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Should any Subscriber receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card asking to have it stopped. Be sure to write your name and address plainly. Look at your wrapper label.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for $1.00; 250 for $1.50; 500 for $2.00; 1,000 for $3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote : White clover 1-lb. sections 20@21c.; 2-lbs., 18@19c.; dark 1-lbs. 17@18c.; 2-bls. 15@16c. Extracted, firm at 7½@10c., depending upon the quality, and style of package. Receipts are somewhat heavier, and when sold in a jobbing way prices must be shaded from 1 to 2 cts. per lb.
BEESWAX.—22@23c.
Nov. 8. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—Prices range from 18@20c. for best grades, with light demand ; 2-lb. sections, 15@16c. Dark is not wanted. Extracted is steady at 7@10c., according to style of package.
BEESWAX.—20@23c. R. A. BURNETT,
Dec. 7. 161 South Water St.

DETROIT.

HONEY.—Best white in 1-lb. sections, 19@20c. Extracted, 11@12c. Demand brisk.
BEESWAX.—21@23c.
Dec. 15. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lbs. sections sell at 19@20 cts. Extracted, 7@8c. Demand small.
BEESWAX.—22@25c.
Dec. 15 A. C. KENDEL, 115 Ontario St.

NEW YORK.

HONEY.—We quote : Fancy white in 1-lb. sections, 17@19c.; the same in 2-lbs., 15@16c.; buckwheat 1-lbs., 12@14c.; 2-lbs., 10@12c. Off grades 1@2c. per lb. less. White extracted, 8@9c.; buckwheat, 5½@6c.; Southern, per gallon, 60@70 cts.—Market seems to be unsettled.
BEESWAX.—22@23c.
McCAUL & HILDRETH BROS.,
Sept. 20. 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote new crop : Choice white 2-lb. sections, 16@18c.; dark 2-lbs., 15@16c.; choice white 1-lbs., 20@22c.; dark 1-lbs., 15@17c. White extracted, 6½@7c.; dark, 5@6c. Demand good, but light supply.
BEESWAX.—21 to 22c.
Nov. 23. HAMBLIN & BEARSS, 514 Walnut St.

ST. LOUIS.

HONEY.—Choice comb, 15@18c.; latter price for choice white clover in good condition. Strained, in barrels, 4½@5c. Extra fancy, of bright color and in No. 1 packages, ¼-cent advance on above. Extracted, in bbls., 5½@6c.; in cans, 6½ to 8c.—Short crop indicates further advance in prices.
BEESWAX.—20½c. for prime.
Oct. 21. D. G. TUTT & CO., Commercial St.

CINCINNATI.

HONEY.—We quote extracted at 4@9c. per lb Choice comb, 18@20c., in the jobbing way. The demand for extracted exceeds arrivals, and for comb the demand is tame.
BEESWAX.—Demand good—20@22c. per lb. for good to choice yellow, on arrival.
Dec. 12. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote : Fancy white 1-lb. sections, 17@19c.; fancy 2-lbs., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10 to 11c. Extracted, white, 9@10c.; buckwheat, 6 to 7c. Market firm.
Nov. 22. F. G. STROHMEYER & CO., 122 Water St

PHILADELPHIA.

HONEY.—Fancy white 1-lbs., 18@19c.; fair 1-lbs 17c.; dark 1-lbs. are slow sale at 14@15c.; fancy 2-lbs., white, 15@16c.; buckwheat fancy 1-lbs., 13@14 cts.; common, 12c. Prices tend downward.
BEESWAX.—23@24c.
Dec. 11. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 20c.; fair, 19@20c.; 2-lbs., 18@19c.; 3-lbs., 16@18c. White extracted in kegs or half-barrels, 9½@9¾c.; in pails or cans, 9½ to 10c.; amber, in ½-barrels, 9¼@9½c.; dark in kegs and barrels, 7@7½c. Demand good, supply fair.
BEESWAX.—22@25c.
Dec. 15. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: White to extra, 15@18c.; amber, 10@13c. Extracted, white liquid, 7@7½c.; amber and candied, 5½@6½c. Market quiet.
BEESWAX.—20@24c.
Dec. 10. SCHACHT & LEMCKE, 122-124 Davis St

BOSTON.

HONEY.—New crop, 1-lb. sections, 18@20c.; 2-lb. sections, 17@18c. Extracted, 6@8c. The market is not very brisk and sales are only fair.
BEESWAX.—25 cts. per lb.
Dec. 10. BLAKE & RIPLEY, 57 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote : White comb, 17@19c.; amber, 12½@15c. Light amber to white extracted, 7½@8c.; amber, dark and candied, 6¾@7¼c. Market firm and stocks light.
BEESWAX.—22@23c.
Dec. 12. O. B. SMITH & CO., 423 Front St.

To Delinquents.—After Jan. 1, 1888, we shall discontinue sending the AMERICAN BEE JOURNAL to those who have not responded to the bills we sent out a few weeks ago. This does not mean that we shall try to *deprive* any one of the pleasure of reading the BEE JOURNAL who really desire its continuance, but find it difficult to pay now. Such can get a short extension of time by asking for it. We should be sorry to lose any subscriber who wishes to have its weekly visits continued, but do not want any to continue to take it who do not think they are getting the full worth of their money. We are contemplating many new features and improvements for next year, which we shall mention in detail in future.

Sweet Clover, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside, at any time of the year.

Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: $6.00 per bushel (60 lbs.); $1.75 per peck, or 20 cents per pound.

Don't do it !—Notwithstanding our many cautions, some persons still persists in sending silver in letters. In nine cases out of ten it will break the envelope and be either lost or stolen. Cases come to light nearly every day, showing that silver sent in letters stops somewhere on the way. It is an invitation to the thief—a regular **temptation !** If you wish to *safely* send money, get a Post-Office Money Order, Express Order, or Bank Draft on Chicago or New York. When money is sent in either of the above-named ways, it is at our risk. In any other manner, it is at the risk of the sender.

Photographs of Bee-Keepers.—We have purchased a lot of the "medley" gotten up by E. O. Tuttle, containing the faces of 131 representative apiarists, and a photographical sketch of each one; and will send it and the BEE JOURNAL for one year for $1.75, or will present it free by mail to any one for a club of three subscribers and $3.

New Subscribers can obtain the full numbers for 1887 and 1888 for $1.80, as long as we have any sets of 1887 left. There are only a few, and to get them an early application will be necessary.

System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. the prices are reduced, as follows :

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

To Advertisers.—The first number of the AMERICAN BEE JOURNAL for 1888, will be a splendid number for Supply Dealers to make their announcements to the bee-keepers of America. Besides the large regular issue, we shall print thousands of extra copies which will be sent out as samples. This will be a rare opportunity for advertisers. In order to obtain space, the copy must be sent AT ONCE. For rates see first page of this issue. The number will be ILLUSTRATED, and will present the finest appearance of any bee-paper in the world. It will be printed from NEW type, on fine, thick paper, and will contain several extra pages of reading matter. Immediate attention will be necessary to secure the rare advantages here offered to advertisers.

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IS published every week, at **10s. 10d.** per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley, Herts, England.

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4A1y HARTFORD, Washington Co., N.Y.

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PRICE 5 cents. You need this pamphlet, and my free Bee and Supply Circular. 31Atf
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Dadant'sFoundation Factory, wholesale and retail. See advertisement in another column

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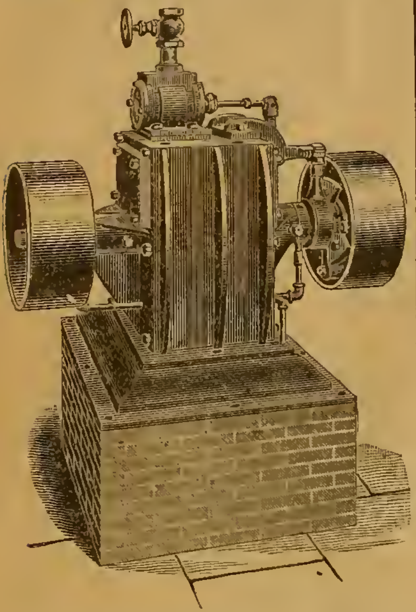

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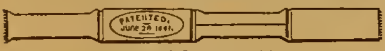
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Patented June 28, 1881.

WILL furnish you, the coming season, ONE-PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.
Watertown, Wis., Oct. 25, 1887.

Wooden Pails for Honey !

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
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15,000 SOLD SINCE 1876.

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More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, **$1.25.** Liberal discount to dealers and to clubs.

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SPECIAL DISCOUNT ON HIVES.

In order to keep our Hive-Factory running during the dull season, we will make a DISCOUNT of 10 PER CENT, on Langstroth Hives, Cases, Frames, Shipping-Crates and Bee-Feeders, received before Jan. 1, 1888.

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THE BEE-KEEPERS'

REVIEW.

ABOUT Jan. 10, 1888, we shall begin the publication of a 16-page monthly having the above title.

As indicated by its name, one of its distinctive features will be the **reviewing** of current apicultural literature. Errors and fallacious ideas will be faithfully but courteously pointed out, while nothing valuable will be passed unnoticed. But few articles will be copied entire, but the ideas will be extracted, given in the fewest words possible, and commented upon when thought advisable.

Another feature will be that of making each number, to a certain extent, what might be termed a "special" number. For instance a large share of the correspondence, editorials and extracts of the first number will be devoted to the subject of, "Disturbing Bees in Winter."

Our own apiary will, hereafter, be largely experimental, and of this our readers will have the benefit.

The price of the **REVIEW** will be 50 cts. per year ; and while we have not the slightest objection to receiving subscriptions in advance, our only request is, that each one interested will send his address, and allow Uncle Sam to hand him a copy of the first issue as soon as it is printed.

The Production of Comb Honey,

A neat little book of 45 pages, price 25 cts. The **Review** and this book for 65 cents. Stamps taken, either U. S. or Canadian.

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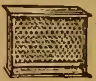

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AMERICAN BEE JOURNAL
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA

THOMAS G. NEWMAN, Editor.

Vol. XXIII. Dec. 28, 1887. No. 52.

We Wish all of our readers, both young and old, a prosperous and "HAPPY NEW YEAR."

Listen to those solemn murmurs,
Weirdly sounding everywhere ;
'Tis the passing moments meaning
Fur the Old and Dying Year.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1888, will richly repay every apiarist in America.

Queries.—We close this volume with Query No. 500, and will commence next year with No. 501. On that account there are none this week. This department is very interesting and instructive to all. The number of replies will be greatly increased for next year.

Our Thanks are hereby tendered to all of the BEE JOURNAL family for their patronage of the past, and all are invited to remain with us for another year.

Wind-Breaks around the apiary are very desirable in winter, or at least on the exposed sides. A high board fence, or even a row of evergreens, will be an advantage.

By Inducing your bee-keeping neighbor to take the BEE JOURNAL for 1888, you will be doing yourself a duty, because he may thus be educated so as not to ruin your market for honey by selling his at a ruinous price, for lack of knowing its real worth.

A Complete Index is presented this week, not only to the subjects presented during the year, but also to the names of correspondents. The latter one comprises nearly all of the best and most thoroughly successful apiarists of the present age.

Never Disturb the bees during cold weather. If anything is necessary to be done, wait for a warm day and then do it about noon.

Sweet Goldenrod is the title of this ambrosial feast of delicate sentiment :

O goldenrod ! sweet goldenrod !
Bride of the autumn sun ;
Has he kissed thy blossoms this mellow morn,
And tinged them one by one ?

Did the crickets sing at thy christening,
When, in his warm embrace,
He gave the love from his brimming cup,
And beauty, cheer, and grace ?

He brightens the asters, but soon they fade,
He reddens the sumac tree ;
The clematis loses its snowy bloom,
But he's true as truth to thee.

Scattered on mountain top or plain,
Unseen by human eye,
He turns the fringes to burnished gold
By love's sweet alchemy.

And when the chill November comes,
And the flowers their work have done,
Thou art still unchanged, dear goldenrod,
Bride of the autumn sun !

Volume XXIII is closed with this number. Another valuable "book of reference" is created for the pursuit of apiculture.

For 14 years the present Editor has had the support and confidence of the readers of the AMERICAN BEE JOURNAL, and hopes to retain and merit its longer continuance.

In order to be of the greatest advantage to our pursuit, we must have the largest constituency of wide-awake, progressive apiarists, and we request that if our patrons think we have labored for their interest in the past, that they will give us "the vote of confidence" in the shape of continued exertions for the prosperity of the AMERICAN BEE JOURNAL.

Its record, character and usefulness in the past is its GUARANTEE for the future. It will lose no opportunity to further the interests of honey-producers by booming the product and defending the pursuit of apiculture.

One Day Late.—On account of our day of printing (Monday) being the legal holiday for Christmas and New Year, the BEE JOURNAL will be one day late for this and next week.

To Detect Glucose in Sugar.—An exchange gives the following recipe :

It is said that the presence of glucose in sugar can be detected in this way: Take a handful of the mixture and drop it into a glass of cold water. Stir it a few minutes and you will note that the sugar-cane is entirely dissolved, leaving the grape-sugar undissolved at the bottom of the glass, in the form of a white, sticky substance, not at all unlike starch in looks, and quite bitter to the taste. It will not do to use hot water in your test, however, for if you do the whole thing will dissolve.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

Swiss Honey.—A correspondent refers to an article which lately appeared in a Boston paper, stating that "what was advertised and sold as Swiss honey, and furnished on the tables of Hotels in the different parts of Europe, and even in Egypt, was not honey at all; that in Switzerland pears were ground in a cider-mill and the juice of the pears was boiled down and constitutes the Swiss honey; that the article is of a clear, light-amber color, and about the consistency of thick molasses, the flavor being very agreeable."

Our correspondent, upon his attention being called to the Boston article by a friend, expressed a doubt concerning it, and both agreed to write to the Editor of the AMERICAN BEE JOURNAL for any facts he may have concerning it, and when sending it, remarked thus :

> As you have traveled in Switzerland and the neighboring countries, I suppose you are able to enlighten us on this question.

The article in the Boston paper is of the same character as the Wiley lie about the manufacture of comb honey published some years ago in the "Popular Science Monthly."

We are personally acquainted with many apiarists in Switzerland and other European countries, and KNOW that their honey is just as pure and genuine as ours. We have eaten of the honey at the hotel tabels, and do not fear to say that it is genuine honey.

The wholesale lying indulged in by scribblers for the press concerning honey, is only an evidence that they know nothing of the matters upon which they write.

In the AMERICAN BEE JOURNAL for 1879, on page 483, is an editorial article which we wrote at a hotel in Switzerland, concerning the popular honey cakes found on the hotel tables of that country. It is called the "Leckerli" of Basle.

Honey as Food.—The "Michigan Farmer" advises the daily use of honey, on account of its beneficial effect on health. It says :

> We desire to commend its daily use to every family in the land. We believe it to be one of the most healthful sweets that can be found, and well adapted to common use. It seems to us very desirable that Michigan should produce a large share of her own table sweets. Could honey be brought into general use, thereby creating an extensive home market for it, we believe it would tend to encourage the culture and production of honey.
>
> It is a healthy sweet for children, and children must have sweets just as the Irishman must have potatoes The honey-bee feeds upon the healthy juices of healthy plants, and honey partakes of the quality of the blossoms of the plants and trees from which it is gathered. The use of this article should become so common and general that a honey store or depot would be found profitable in every large town. We believe in encouraging the bee-men and women, and if every family in the land would make honey an article of daily use, in place of the unhealthy syrups, then all concerned would be benefited.

Correspondence.

This mark ⊙ indicates that the apiarist is located near the center of the State named; ♁ north of the center; ♀ south; O+ east; +O west; and this ♂ northeast; ~O northwest; O~ southeast; and ♀ southwest of the center of the State mentioned.

For the American Bee Journal.

United States Linden Honey.

DR. A. B. MASON.

Well, did you ever! Who will be the next to "rile" me up? Because I was so generous and kind-hearted as to try to set Mr. Pettit and the "managing committee" right, in regard to some of his statements in the AMERICAN BEE JOURNAL, here comes Mr. R. McKnight (on page 791), and says that I "manifest a good deal of feeling towards" my "cousins across the border." I confess that I *do* have "a good deal of feeling" concerning all wayward people, and to the extent of my ability desire to aid in getting them in the right way when they go astray.

In his second sentence, Mr. McKnight says: "None of his remarks already published, or hereafter to be written, will deter Canadian bee-keepers from selecting their own names for their own products." That is right; but give the proper *credit* when you make your "selections." My understanding of this sentence is, that I *have* said, or *will* say something to "deter" them, etc. Such is not the case. I have nowhere made the least objection to Canadians giving their products any name they may choose, and had Mr. McKnight read my article on page 709, he would have found no use for his assertion above, for I am there quoted, and correctly too, as having said that I "thought it perfectly right to make Canadian articles distinctively Canadian," etc.; and Mr. Pettit agrees with me about it.

I am not aware that I am obliged to "confine" myself to the "refutation" of any *one* erroneous statement made by Mr. Pettit, Mr. McKnight, any other Canadian, or any one else, but I think I shall "wander around" after such bee-literature that "gets off its base," as I may see fit, and although Mr. McKnight, in each of his first two paragraphs, seems to insinuate that I object to Canadians using such names and terms for their products as they see fit, I wish to state most emphatically that I have nowhere done anything of the kind.

I will admit that there is a "moiety" of seeming truth in Mr. McKnight's statement that I charge Canadians "as a people with dishonesty and fraud" in the quotation he gives, if "in a 'wily' way" means "dishonesty and fraud;" but I believe my "copy" had a capital W, and an *e* in "Wiley," and if so printed, I presume no one would have thought that I charged Canadians with "dishonesty and fraud" in that connection; but in other places I did use the term "misrepresentation and fraud," and I do not wish, nor intend to "take it back," nor apologize for it till I am satisfied that I was mistaken.

In another place I said: "And I pity the ignorance or the dishonesty (I do not know which it is) of every one, be he Canadian, Englishman or 'any other man' who has said that the basswood honey produced in the United States is inferior to the 'fine, richly-flavored' Canadian article, because of its quality or color," and I intend to let it stand just in that way, too.

I do not, in the least, doubt the truth of Mr. McKnight's statement when he says that "the sins of that sharper" (if there was such) "are visited upon his countrymen to this day," for a people who do not know the difference between "basswood nutmegs," "basswood hams," or "basswood" honey, unless properly "stamped," would not be very likely to know the difference between a "sharper" and a nation of honest people. Oh! yes, neighbor, I have *frequently* heard that Englishmen are "*modest*" (for how can an Englishman write an article without putting his "modest" foot in it); but I have never seen any proof of it, unless the terms "modest" and "bombastic" are synonomous. Now, this does not apply to Canadians, for my personal acquaintance with Messrs. D. A. Jones, F. H. Macpherson, Pettit, Emigh, and Holtermann, and the Rev. W. F. Clarke, lead me to believe that, if they are representative Canadians, that the Canadians are just about as nice and genial as the "Yankees" are. But I do not mean to say that *all* Canadians or Yankees are nice and honest.

"No, no," Mr. McKnight, I did not say that it was a "put up job" on your part to rob us of the reputation, etc., but what I *did* say was, that the more I thought about Mr. Pettit's statements, "the more thoroughly did I become convinced that it was a 'put up job,' and a deliberate and unwarranted attempt, by misrepresentation and fraud, to *build up a name and market* (italics mine) for Canadian basswood honey," etc. Nothing about *reputation*, you see. Mr. McKnight should stick to the text, and not get too much "misrepresentation" in his "remarks."

I am *more* than pleased to have Mr. McKnight say that "Dr. Mason misstates the facts when he says that Canadians in a 'wily way,' or any other way... have not sought to destroy confidence in the good qualities of American basswood honey, and claim superiority for their own;" but how are we to know that his utterances have more of truth in them than Mr. Pettit's, or even as much?

Perhaps I made a mistake in taking Mr. Pettit for a representative Canadian, but he was President of the Ontario Bee-Keepers' Association, and it seemed rather natural to presume that he was the very best authority on the subject, for he signed his name and "President Ontario Bee-Keepers' Association." It may be possible that it is one of my blunders, but I am not going to make another by putting Mr. McKnight down as better authority than Mr. Pettit, for I do not believe it.

"One swallow does not make a summer," Mr. McKnight says. Well, I suppose he is right, for I *have* several times heard that it takes *two*. "Nor one man make a nation;" I expect that depends upon the man and the *nation*. I have heard of a man *saving* a nation. Perhaps it is not "generous" on my part to manifest such antipathy against my "cousins and relatives," because one (or in this case *two*) of them "hold and express opinions peculiar to himself (themselves), and in which his fellow countrymen do not sympathize." But, "it is English you know," for, as Mr. McKnight shows, they visit "the sins of that sharper....upon his countrymen to this day." How is that for being *generous?*

I am not sure that to "hate" is an "evidence of fear on the part of the hater, and power on the part of those hated;" neither do I see its application here. It certainly does not apply to me, for I do not "hate" any *person*, but I *do* hate the actions and doings of a large number of people; and as for "fear," I do not now remember that I am particularly afraid of, or fear any one.

I am not aware that any one has asked, or even expressed a desire that some one should aplogize for adopting the word "linden" as against "basswood," and I fully agree with Mr. McKnight, "that the term linden.... is more....correct," and the Canadians have shown their good sense in adopting it; and now that it is used in the North, South, East and West, it is to be hoped that those living in the limited area in the United States, that have been following the bad example of the Canadians in using the term "basswood," will soon get back into the "right way," and use the term "linden" only; for it certainly is "more correct." The only reason that I can see why the "term linden is at once more respectable" is, because it is "more correct," and it is "more respectable" to be correct than to be incorrect; so let all try and be among the "more respectable" ones.

I *do* not, and *did* not "complain," and am not "riled" because Canadians adopted our name "linden," but give them credit for their shrewdness in holding on to a good thing when they see it. What I *did* complain of, was the seeming, if not *real* attempt of the Canadians (Mr. Pettit being their representative) to introduce their honey "in the markets of the world by misrepresentation" (and that is fraud, I guess) in calling it "superior" to our honey.

If I am mistaken about "the warm words about the $1,000 grant," I am glad to "stand corrected," but I said what my impression was in scanning the matter in the *Canadian Bee Journal.*

My object in my articles on this subject was to show that Mr. Pettit's statements in regard to the color and quality of United States linden honey were incorrect; and also to show our Canadian neighbors that the term "linden" is the one used over much the larger portion of the United States; the term "basswood" being used only along the Canadian border; and I leave it to those interested to say how well I have succeeded in doing it, and I shall be most happy to furnish, if desired, more evidence of the truthfulness of my statements in regard to the color and quality of United States linden honey. Thanks to the Canadians for getting me to using the "more respectable" term "linden."

Auburndale,⊸ O.

For the American Bee Journal.

Season of 1887, Honey-Boards, etc.

J. E. HAND.

Bees have done very poorly in this vicinity the past season. There was but little white clover bloom, and only on low land along the streams. On account of the extreme drouth, it yielded no honey, consequently at the beginning of basswood bloom the bees were almost destitute, in fact I should have had to feed my bees or let them starve in July. But basswood came to the rescue just in time to save our bees, and they began to work with a vengeance, and soon had their brood apartments filled with nice white honey. Only the very strongest colonies went into the sections; those that were not strong enough to work in the sections profitably, I divided. I had only three natural swarms. I commenced with 30 colonies, increased them to 41, and took about 500 pounds of comb honey.

My apiary is three miles from the nearest basswood trees. I am satisfied that my bees went five miles to work on basswood. I think that another year I shall have my bees nearer the timber, as I think that my yield would have been twice as large had I been close by the timber. We had the best flow of basswood honey that I ever knew.

Buckwheat yielded no honey, and fall flowers but little, consequently about one-fourth of my colonies had to be fed for winter. My bees never went into winter quarters so light in stores as they have this winter; but I intend to see that none of them starve. It is my opinion that a great many of the "guess so" bee-keepers will lose most of their bees this winter.

I wish to say a word in favor of the Heddon honey-board. I have used it in my apiary for the past two seasons, and I think it will pay for itself in a very short time. It has only to be used to be appreciated. It does entirely away with all brace-combs, and does not hinder the bees from going into the sections.

The prospect of next season's honey crop is not very flattering, to say the least, as white clover is all killed on high ground, and the rains came so late that the seed did not germinate in time to get sufficient root to stand the winter. All we can do is to have our bees in the best possible condition to make the most of whatever we get, and be thankful for the blessings already bestowed.

Owasa,⊙ Iowa, Dec. 16, 1887.

For the American Bee Journal.

Wintering Bees in Kentucky.

J. M. TYLER.

I have 25 colonies thoroughly Italianized with pure queens obtained from States north and south, to break up sectionalism, insure harmony and no seceding. They are in 10-frame (each in upper and lower story) Langstroth hives.

All the information in the bee-papers on the subject of wintering bees is from apiarists of higher latitudes, where the cellar or chaff hives are necessary. Successful wintering on the summer stands here is what this section and latitude wants. Last winter I wintered 14 colonies on the summer stands in two-story Langstroth hives, in good condition, while I heard of the usual loss from my neighbors. About the last of November I distributed 2 frames of honey from the strong to the weaker, placing the weaker colonies in the centre of the hive, with 5 or 6 frames of honey, all empty frames being removed. I close them in with division-boards reaching to the bottom; then fill the vacant spaces between the division-boards and wall of the brood-chamber with chaff. This makes thick walls, insures warmth, and enables weak colonies to maintain a proper temperature. The honey-boards are removed from all the colonies, and Hill's device, easily made out of clean barrel staves, put on the body of the upper story. Then I lay on a cover of burlap, coffee-sack, or pieces of carpet, always clean, and cut large so as to tuck all around. I place on top of this a chaff pillow about 6 inches thick, made to fit tightly, so as to tuck down close in the corners. I then put a roof on and fasten it down with wire.

I do not unpack them in the spring until cold spells are over, and until the brood calls for more room. I feed in the spring by mixing honey and granulated sugar with a little fine meal to a paste; I spread it on thin boards, which I shove in at the entrance at night, and remove early in the morning.

I had no swarms the past season, but divided colonies as directed by Mr. Muth. Six or 7 of my old colonies stored an average of 20 pounds of surplus honey. Zinc queen-excluding honey-boards and Heddon's break-joint slatted honey-boards were used. The zinc honey-board will not do for this locality. The honey melted down out of the frames in the super with them, where they were exposed to the sun; and furthermore, the bees stopped most of the holes up with propolis, and I think that some bees are too large to get through readily, or not all. I discovered this when using a drone-catcher which had the perforated zinc. The slatted break-joint honey-board is a gem; where it was used no honey melted, and no necks of comb were built to the super frames.

Compared with all the writers for the bee-papers, I discover that Mr. Muth and myself are behind in holding to the 10-frame Langstroth hive. I am perplexed to know the best and cheapest hive to use for my locality to winter bees on the summer stands. Several styles are recommended; but it is not easy to change after a large apiary is built up. We must use pine lumber, as poplar is so given to warping. What is the best hive for us here?

Bowling Green,♀ Ky.

[We know of no better hive than the Langstroth for all purposes and all latitudes.—Ed.]

New England Homestead.

Late Fall Work in the Apiary.

SAMUEL CUSHMAN.

Every pleasant day my bees worked with a will on wild asters or frost weed. The golden-rod bloom was about over. My Cook apiary is where many farms are grown up to weeds and brush, and golden-rod and asters are very abundant.

Being on a hill, frosts hold off late, and I generally get a good fall crop, always enough for winter stores. Here the bees gathered enough during the season to keep up brood-rearing, and during the yield from chestnut, most colonies drew out the foundation and nearly filled with honey from 40 to 80 one-pound sections. This I allowed to remain, as the honey is dark, and does not sell so well. During the long scarcity that followed, these boxes were emptied, and the honey used to rear brood. At the opening of the fall flow all the colonies were very powerful, but had less than a fortnight's supply of stores.

FALL HONEY IN SECTIONS.

As I had not taken enough surplus to meet the local demands, I wished to make the most of this flow and to get all the honey possible in the sections. To do this, I crowded all the colonies on very few brood combs to force them into the sections, and as bees are reluctant to build comb late in the season, I gave only sections containing drawn-out combs. A thick chaff cushion was placed above to retain the heat.

I generally leave sufficient natural stores for the winter supply, but I have made an exception this season. As soon as there is a killing frost, all the honey in the hives in the home apiary was extracted, also that in the others when it could be conveniently done.

FEEDING BEES FOR WINTER.

I then spread the combs as they were to remain for the winter, and immediately fed sufficient thick sugar syrup to last until spring. By using a large feeder, twice filling was sufficient. A strong colony will empty one feeder twice in a day. If I fear robbing, I feed only at night, otherwise both morning and evening. The earlier this can be done the better, as after the weather is cold, bees are less active, and the feed is not so readily stored and capped. It should be given warm, or fairly hot. I prefer to have all feeding done if possible in September, and have no occasion to open hives after Oct. 1; the chances for successful wintering are then much greater. Frames are spread 1¾ inches from centre to centre; this enables the bees to thicken the combs at the top, store more at each comb, and gives more room for them to cluster between the combs. In the working season, I space them 1⅜ inches from centre to centre. Bees usually place most of their stores of pollen in each outside comb, or at least in the outer ones which they occupy. Remember this when filling hives with spare combs before feeding.

WHAT I FEED THE BEES.

I doubt not that the best quality of honey is the best winter food for bees, but after it has been removed from the hives, the bees do not again get it. The poorer qualities are fed back in the spring, when it is used to rear brood, and does not affect the bees unfavorably, but I do not feel safe to use it for winter stores, and, therefore, use the best grade of granulated sugar. This is dissolved in boiling water in the proportion of 5 pounds of sugar to one quart of water. If not used, it will soon crystallize. To guard against this occurring in the hive, bee-keepers use an acid which is added while the syrup is boiling. Some use tartaric acid, an even teaspoonful dissolved in water for every 20 pounds of sugar. Others use vinegar. If added when quite hot, it makes a chemical change in the sugar called "inversion." This prevents granulation out of the hive, and when bees are fed late, and have no time to treat it with their natural acid secretion, it may be a good thing; but if fed early, while it is warm weather, I do not believe their artificial aid will be of any benefit.

This season I added to every 20 pounds of dissolved sugar, 2 ounces of strong honey-vinegar, 1 ounce of salt, and 2 ounces of salicylic acid solution. Salicylic acid has a close affinity (or is like in its nature) to the formic acid of the bees, is an anti-fungus, and much used as a preventive and a cure for that great scourge of bee-keepers, foul brood. It is here used as a preventive. The solution is made of salicylic acid 1 ounce, soda borax 1 ounce, water 4 pints. Granulation may also be prevented by adding one pint of honey to 4 quarts of sugar syrup.

STORING SYRUP IN EMPTY COMBS.

Most colonies in my apiary were so contracted that there was little room for honey in brood-combs, and it was not to be extracted, but as soon as the sections were removed, a sufficient amount of sealed stores was given from other hives. One colony in the home apiary had been employed for a month in storing syrup in empty brood-combs, which, as soon as they were filled and sealed, were removed and replaced by empty combs. These were carried to an out apiary, where I make "short stops," and cannot feed in the usual way. I also use them late, if needed, after it is too cold to feed syrup.

I obtain bees that are condemned to the fumes of brimstone, and successfully carry them through the winter in this way. In most cases I cause all of this feed to be used early in the spring, and feed more before the time for sections. Should any remain, my system of management absolutely prevents all possibility of its being carried into the surplus sections.

Pawtucket, R.I.

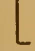
For the American Bee Journal.

Separators for Old-Style Heddon Case.

M. MILLER.

I have seen communications from bee-keepers who use the old-style of Heddon section-case, who expressed a desire to use separators between the rows of sections, but could not do so without using a separate separator with each section, which is too much trouble, the trouble arising from the peculiar construction of the case. I will now give a description of a device which can be used in connection with the Heddon-case, which changes it so that separators can be used, or not, just as the bee-keeper desires. It is as follows:

First cut some strips of wood (pine is good enough) as long as the case is wide; plane these down until they are about 7-16 of an inch one way, and scant ⅜ of an inch the other way. Then cut out some strips of heavy tin 7-16 or one inch wide, and the tin strips of the same length as the wooden sticks; nail the tins on the sides of the sticks that measure scant ⅜-inch across the base, using ½-inch wire nails. Let the tins project 3-16 of an inch on one side of the sticks, putting the nails about 1½ inches apart; then put the device in a good clamp, and fold the sides of the tins which project 3-16 of an inch over on the stick. Now turn the stick right over, and fold the tins that project ¼ of an inch out from the stick at right angles, and that part is done. Now get out some more sticks the same length and size of the sticks on the tins. Plane off the two corners on the same side of the sticks, and the device is done.



Remove the three partitions from the inside of the case, and nail some small pieces of very heavy tin right beneath where the partitions were on each side, letting them project inside of the case about ¼ of an inch, for the ends of the device to rest on. Drop one of the devices in where each partition was; put in the sections, then drop in the separators, and last put in the strips with chamfered corners down so as to enter easy. Make the strips to fit snugly. If separators are not used, tack small pieces of tin across each end of each stick, to keep it from falling too low down between the sections.

The advantage of this device is, that the case can be emptied at one move, like the **T**-super used by Dr. C. C. Miller and others. **T**-tins, like those made with wooden centres, are a great deal stronger, and are not so liable to get bent and kinked as the common style of **T**-tins.

Let some of the readers try a few of these devices, and see how they like them. If they do not like them they can put in the partition again.

Le Claire, Iowa.

Prairie Farmer.

The Bee's Legs and Feet.

MRS. L. HARRISON.

At the late bee-convention in Chicago, Prof. Cook, of Michigan, gave a very interesting and instructive lecture on the legs of the bee, with illustrations many thousand times magnified. The microscopic study of the bee has lately received a new impetus by the visit of Mr. Cowan, editor of the *British Bee Journal*, who brought to this country a microscope acknowledged by experts to be one of the finest they had ever seen.

In looking at these illustrations, it is easy to see how the bees gather up the pollen and store it in their baskets. It would seem to appear by the law of "the survival of the fittest," as age upon age has rolled away, that these baskets have increased in size. As an illustration, take the island of Cyprus, which, added to a sterile soil, has dry scorching winds, parching everything in the form of vegetation. The inhabitants of this island never feed the bees, therefore those only survive such an ordeal which possess the greatest endurance and the largest amount of stores. Where there are colonies equal in numbers, and some of them store surplus while others are starving, it shows conclusively that some of them possess attributes which are lacking in others. They may have stronger wings, and can fly further and faster, or have larger tongues, which enables them to reach nectar which the others cannot, or have larger receptacles for carrying pollen, thereby enabling them to rear more workers.

This fall I was showing a visiting bee-keeper a feeder which was merely a solid block of wood with holes cut into it by a wobbling saw, into which the feed could be poured. He remarked that if I put that on a hive, full of syrup, in a short time it would be full of drowning bees. It had been given to me for trial, and I had never used it. As I was then feeding a colony short of winter stores, I filled it and put it on a hive. When I went to look after it, I found the feed all gone, the feeder dry and clean, and no dead bees in it.

I then filled some wooden butter dishes, and found that without any floats, it was all carried down, without any being drowned. I was puzzled at this, for if a vessel of earthenware, tin or glass had been used in this way, it would have been full of drowning, writhing bees. It was made plain at the convention why this is so. When a bee walks on wood, his tarsi or feet take hold with a sort of grip, but he cannot do this on a smooth surface like glass. When a bee's feet are dry, and it walks upon glass or tin, its feet secrete a sticky substance which enables it to hold to the surface.

If a pane of glass is examined with a microscope after a bee has run up and down it, its tracks can be seen, and this is what discolors the white comb, if it is left long on the hive after it is sealed. I have often noticed that glass was sticky after bees had been running up and down on it, and supposed that it was a wax secretion.

The delay of winter has allowed the bees time to get ready for cold weather.

Peoria,⊙ Ills.

For the American Bee Journal.

Season's Results—Sweet Clover.

D. R. ROSEBROUGH.

The past fall was so dry that white clover was killed out, and the fall rains were so late that it is very small and tender. If we have a hard winter it will all be killed, and if that should be the case, we will have no honey in 1888 here. I have 58 colonies in good condition. I did not have a swarm this year, and 500 pounds will cover my crop of honey. It was my fault, and not the fault of the bees; for in May and June, when I should have been at work with the bees I was at my work of township assessor; in fact I tried to keep the bees back so I could get through with assessing before swarming commenced; but by the time I was through assessing, the honey-flow was over, and I lost about $500 worth of honey, and my office brought me only $150.

Perhaps some would like to know how I can tell that I lost so much. It was in this way: Two or 3 colonies that were close to the house I fed a little honey between apple bloom and white clover bloom, and they stored about 80 pounds each. Those that I did not stimulate by feeding, did not store a pound. I had plenty of honey to have fed all the bees that I had, as much as I did those that I did feed. Still there is something to be learned, and that is, to attend to that which will pay the best.

The bees are in good condition. Honey brings 20 cents per pound here in the stores.

PLANTING SWEET CLOVER.

To get a good stand of sweet clover, follow these directions: Plow the ground in the same way that you would plow it to plant corn or potatoes; and then from a place where the sweet clover has a stand, dig it up by the roots and set it out as you would cabbage. If it is planted in rows as corn, or thicker, it would do better. You can have a stand every time in this way. It will grow and bloom the first year, and seed the ground, and it will give no further trouble.

Casey,o+ Ills., Dec. 16, 1887.

For the American Bee Journal.

Fastening Foundation in Sections.

ELIAS FOX.

It would seem from Mr. Eden's remarks on page 790, that there had been no satisfactory method developed for fastening foundation in sections. My method is satisfactory to *me*, although it lacks one of the features which Mr. E. terms "speed;" although for neatness and strength I do not think that it is surpassed by any, and it is done speedily enough for me.

The implement which I use is simply a piece of thoroughly seasoned hickory (although any *hard* wood will do) 5 inches long, ½ inch thick, and 1 inch wide, at the widest end, *this* end being shaped like the end of a putty-knife, and nicely rounded, polished, and oiled. I cut the foundation in pieces about one inch square, and set my sections on the work-bench; take the foundation in my left hand, and the implement in my right, and use it just the same as if putting glass in a window.

In the summer the wax is perfectly pliable, so the foundation can with perfect ease be brought to the proper shape, where I will guarantee that it will stay, no matter which side of the section is down. I can put in 300 starters in an hour, and not one in 500 will come out, no matter how smooth the section is. In cold weather, of course, the work will have to be done in a warm room. I have practiced this method for three years with perfect success.

My idea of using so small a piece of foundation is, that it entirely does away with the leathery "fish-bone" which is so much complained of.

Hillsborough,+o Wis.

Bee Keepers' Magazine.

Causes of a Light Honey-Crop.

JOSHUA BULL.

The winter of 1886-87 was notable for its severe and long-continued cold period. My bees, wintered upon the summer stands, did not get an opportunity to have a good flight from Nov. 2, 1886 to March 9, 1887. I examined them all at the latter date, and every colony had capped brood in three or four combs. I never saw bees in better condition at that time of the year.

On April 10 they commenced to bring in fresh pollen, and things looked very encouraging, but from some cause the old bees seemed to disappear about as fast as the young ones hatched, so that on May 1 they did not appear to be much stronger in numbers than they were in March; but by the last of May some colonies were just boiling over with bees.

White clover blossoms began to appear on May 30, and by June 10 there was an abundance of it in bloom; but thus far it did not appear to yield much, if any, honey. From June 10 to June 16 honey came in quite freely. Some colonies nearly filled a case of sections during these few days; and let me say right here, that this was the driest time we had during the summer. During the night following June 16 we had a heavy thunder shower, and for the next eight days the bees made no perceptible increase in the supers. On June 24 they began to work more lively, but stored surplus quite slowly.

Basswood blossoms began to open the last of June, but did not appear to secrete much nectar until July 4. From July 4 to July 27, inclusive, it yielded fairly well, and then it was all over; our harvest of white honey was done, and a very light crop it was indeed. Bees continued to gather a little honey from corn tassel and other miscellaneous blossoms sufficient to keep up brood-rearing.

About July 25 buckwheat, golden-rod, celendine and thoroughwort began to bloom; these, with a succession of other autumn flowers, supplied a continuous moderate flow of honey until Sept. 20, although the forepart of the month was too rainy and cool for bees to do much. From Sept. 15 to Sept. 20 it was warm, fine weather, and the bees worked lively and stored honey freely. During August and September they stored more honey than they did in June and July. This was the best flow of fall honey that we have had for the last five years. All bees in this vicinity are well supplied with food for winter without any feeding.

It appears to be a very general complaint from almost every quarter, that the honey crop of 1887 has been unusually light, and the cause is almost unanimously attributed to drouth; but I apprehend that the dry weather was not the only cause, nor do I think it was the principal cause of the failure of the honey crop. If such were the case, how could it happen that the best flow of honey that we had last summer came during a few days right in the very driest time in the whole season; while just before, and immediately after, there appeared to be very little or no nectar in the flowers? That is the way it worked in this locality, as near as I could discover, and I watched things pretty carefully, or at least I tried to.

I think it was the late Moses Quinby who said that the best time for bees to store honey is when the farmers begin to complain of the need of rain, or words to that effect, and my experience coincides with that sentiment. Now, in this immediate vicinity, it was not so extremely dry during the past summer as to affect the field crops very badly, although more rain would, no doubt, have been beneficial to them, yet the honey crop was no better here in June and July than in many other places; and the same condition of things appears to have existed in other localities also.

In the AMERICAN BEE JOURNAL, page 613, W. J. Cullinan, of Mt. Sterling, Ills., makes the following statement: "We have had this year, without exception, the largest wheat and oat crop that was ever known in this section of the country, and I see the same recorded for Missouri and other States. We had a fair crop of hay, and will have more corn than we had last year. We have double the yield of clover seed than was ever known before. It is true that the honey crop has been a partial failure."

I desire to call special attention to that part of Mr. Cullinan's statement wherein he says, "We have double the yield of clover seed than ever was known before." Now, the complaint is almost universal from Illinois, Iowa, and Wisconsin, and many other places, that the yield of honey from white clover was very light indeed, notwithstanding the fact that clover bloomed profusely and yielded seed abundantly, at least in some places where the honey crop failed.

From the foregoing I draw the conclusion that it was not altogether the lack of rain that cut the honey crop short the past season.

A pertinent and interesting query very naturally arises at this point: What, then, is the reason the flowers did not supply their usual quantity of nectar? If I were called upon to answer this question. I should freely admit that I do not know. But judging from appearances, I have formed the opinion that the failure did not result altogether from the want of rain, but was also equally due to some peculiar state of the atmosphere, which I do not fully understand, and therefore cannot explain satisfactorily even to myself. I am not a scientist. The secretion of nectar in the flowers is a very delicate process, achieved only by the spontaneous action of natural laws which are dependent upon suitable atmospheric conditions for the fulfillment of their functions; and are very sensitive to any interruption of, or changes in, those conditions. Even the changing of the wind from one point of the compass to another, will sometimes appear to suspend the operation altogether for the time. We can understand the effect, although we may not be able to comprehend the "why and wherefore" concerning it.

Every one that has had much experience with maple sugar, is doubtless familiar with the fact that the flow of sap from the trees is governed almost wholly by the state of the atmosphere. When the conditions of the atmosphere are just right there will be an abundant flow of sap; when they are not right no sap can be obtained, although there may be no visible difference in outward appearances. Is it not reasonable to suppose that the flow of nectar in flowers is equally as much affected by atmospheric conditions, as is the flow of sap in the sugar maple?

Seymour,○+ Wis.

For the American Bee Journal.

Managing Swarms—Interesting Relic.

E. L. HOLDEN.

I began the last winter with 14 colonies on the summer stands, all being packed in sawdust. All but one came through the winter in good condition, and that one was destroyed by mice. From these 13 colonies, and two new ones, I took 563 one-pound sections of honey, and 251 two-pound sections, making some over 1,000 pounds of comb honey.

My method of managing was, to take out all queen-cells, and then return the swarm to the old hive, when a swarm issued. I do not like this way, because I never know when the bees are through swarming. In some instances they came out again in six days after being returned, with sealed queen-cells. In other cases they would come out in two days, but not with sealed queen-cells. My bees began swarming on May 16, and the last swarm issued on July 16.

I was 73 years old last May, and have had the management of bees, to some extent, ever since I was large enough to handle a bee; and the more I see of them the more interest I take in them.

AN OLD RECEIPT.

I have a receipt for the right to use the Langstroth hive, signed by the hand of L. L. Langstroth, in Greenfield, Mass., and dated Feb. 18, 1858, nearly 30 years ago. The receipt was for $5. I am glad to hear of the good health of the inventor of the movable-frame.

N. Clarendon,+○ Vt., Dec. 13, 1887.

For the American Bee Journal.

Uncapped Honey—Consumption Cure.

JOHN A. RICKENBACHER.

The past season has been another total failure in this locality, making three years of failure out of the last four years here. When fruit bloom opened, the bees gathered a little honey from that source. White clover was a failure, but the bees gathered enough honey from linden bloom to carry them through until fall bloom, from which they gathered barely enough to last until spring. My bees had a great deal of uncapped honey, and some had nothing else but uncapped honey when I packed them for the winter, which was about the last of October. Do you think they will winter well on that kind of honey, if other conditions are right? I am going to try it. The honey is thick, and of a good quality.

I had a conversation with a groceryman in Columbus, last summer, who told me that this was the first summer for a number of years that he could get no honey to sell. What has become of the comb honey manufactors? Has the disastrous year killed them? Two years ago a man told me that there was a firm in Columbus that was selling manufactured comb honey, but I hear nothing of them now. I suppose that they have also gone to sleep with the rest.

The following is a good recipe for consumption: To two ounces of allicopaign roots add two quarts of water, and boil down to one-half; then add one quart of honey, also 5 cents worth of the best licorice stick, and boil down to one-fourth. A dose is a table-spoonful, to be taken before each meal.

Gahanna.⊙ O., Dec. 13, 1887.

[Being thick honey, even though uncapped, it will probably answer very well.—ED.]

For the American Bee Journal.

No Complaints—Odorless Foul Brood.

WM. B. M'CORMICK.

While others are complaining so much about the last season being so poor for honey, I have no reason to complain, although we have had the driest summer that has been known here for many years. No rain has fallen since the middle of May to the present, at any one time, sufficient to wet the ground 2 inches deep; yet we had enough to keep vegetation in good condition until July 5, when it became so hot and dry that the white clover (our only source of surplus honey) was completely dried up. But about Aug. 1, we had some good showers that started the fall flowers to blooming nicely, and during September and October the bees had a good time, and filled their hives mostly from asters, which was the first time I ever knew them to produce honey to any extent. The honey came in in such quantities that the whole yard, for rods around, was scented with it.

My crop from white clover was 1,800 pounds, which has been disposed of in my home market at 20 cents per pound. Some of my colonies produced from 90 to 120 pounds each.

I have wintered my bees the last two winters without any loss, excepting one or two that became queenless. I winter part on the summer stands, well packed, and part in the cellar. Those wintered out-of-doors I think stand the sudden changes in the spring better than those wintered in the cellar.

ODORLESS FOUL BROOD.

I was very much interested in the article on "Odorless Foul Brood," on page 730, as that exactly described the kind of foul brood that we are plagued with in this locality, and what a few years ago destroyed nearly all the bees in this county, as well as in several of the adjoining counties. Also the remedy there recommended is what I have been practicing, and I find it effectual, and I do not fear the disease now as much as I do spring dwindling or bee diarrhea.

I am not yet satisfied as to its origin, but I am rather inclined to believe that it comes from chilled brood. The Italians are not as liable to be affected by it as the blacks, and much more likely to overcome it if attacked. In fact, I have had several Italian colonies to recover, that were badly diseased, and from all appearance they became perfectly healthy without any doctoring; but I would not advise waiting a day to treat any colony, but would apply the transferring remedy upon the first appearance of the disease.

Uniontown,♀ Pa., Dec. 11, 1887.

Local Convention Directory.

1888. *Time and place of Meeting.*

Jan. 7.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Jan. 10.—Cortland Union, at Cortland, N. Y.
R. L. Weaver, Sec., Dryden, N. Y.

Jan. 10, 11.—Ontario, at Woodstock, Ont.
W. Couse, Sec.

Jan. 10, 11.—Ohio State, at Columbus, Ohio.
Frank A. Eaton, Sec., Bluffton, O.

Jan. 11.—Nebraska State, at Lincoln, Nebr.
Henry Patterson, Sec., Humboldt, Nebr.

Jan. 17, 18.—N. W. Ills & S. W. Wis., at Rockford, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

Jan. 18, 19.—Vermont State, at Burlington, Vt.
R. H. Holmes, Sec., Shoreham, Vt.

Jan. 17-19.—New York State, at Utica, N. Y.
G. H. Knickerbocker, Sec., Pine Plains, N. Y.

Jan. 20.—Haldimand, at Cayuga, Ontario.
E. C. Campbell, Sec., Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bee-Keeping in Utah.—Luther K. Stewart, Benjamin,⊙ Utah, on Dec. 15, 1887, writes:

Bees have done very well here the past season. I have taken 4,200 pounds of extracted honey, and 300 pounds of comb honey from 30 colonies, and increased them to 46. All the honey was gathered from lucerne and sweet clover. We use the American hive, and winter our bees on the summer stands, as we think that they winter better in this hive than the Langstroth. The American Bee Journal is a welcome weekly visitor.

Late Extracting, etc.—H. S. Hackman, Peru,♂ Ills., on Dec. 14, 1887, writes:

Yesterday I extracted my crop of honey for 1887, amounting to 28 gallons; I also had about 150 pounds of inferior comb honey. I started with 65 colonies in the spring, had no increase, and I now have 55 colonies safely packed for winter. Last year I started with 42 colonies, increased them to 84, and had 6,000 pounds of honey, half comb and half extracted.

Perhaps I ought to explain about the extracting in winter. I examined my bees about Oct. 10, to see what they had, and get them in condition for the winter. I work them on the socialist plan, as I take from those that can spare, and give to those that have not enough; and what they have more than both the rich and the poor need, I take for myself, and that is where the 28 gallons of extracted honey came from. I have several times extracted honey before this in the winter, by bringing it near a stove to get it warm enough; but this time I put it over an old-fashioned heating place in the green-house, and it worked like a charm, equal to any I have done in the summer.

An Old Subscriber.—George Ball, Danbury,♀ Conn., on Dec. 17, 1887, says:

I have taken the American Bee Journal for 23 years, and never missed but one number. I sometimes wonder how many of the subscribers can say that. I am now old and broken down, and must give up keeping bees.

[It is refreshing to hear from the old stand-bys. Mr. Ball has taken the American Bee Journal ever since it started, and as he has lost only one number in that time, it would be almost impossible for any one to do much better.—Ed.]

Wintering Bees in Depositories.—J. W. Bittenbender, Knoxville,♀ Iowa, on Dec. 19, 1887, writes:

Bees that have been taken care of and supplied with winter stores are in fine condition. My 120 colonies have been in a cave for 33 days. Every one was weighed when put into the cave, and I will weigh them when I take them out. I also put 2 colonies in on Oct. 24, and weighed them; up to Nov. 18 they consumed one pound of honey per colony; while on the same day (Oct. 24) I weighed 20 colonies and left them on the summer stands; they consumed 3 pounds per colony. This is another point in favor of putting bees in winter depositories early.

Flat or Natural Base Foundation, etc.—Clarence W. Wilkins, Cortland, ⊙ N. Y., on Dec. 19, 1837, writes:

The financial benefit derived directly from the apiaries in this section the past season has been slight; indeed, so slight that some apiarists have scarcely received enough from their bees to repay them for the necessary labor expended in their care. From a spring count of 13 colonies, I increased to 25, with a surplus of about 600 one-pound sections of very good clover and basswood honey; buckwheat yielding scarcely enough to be worth mentioning. The bees still have enough for winter stores, which is far superior to the condition of numerous colonies throughout the country, unless they have been fed considerable. This yield which I received is far better than the average, being about 46 pounds per colony, spring count; so that I think I ought, and am content with my results.

1. Which is the most profitable for the bee-keeper to use, flat or natural bottom foundation in the one-pound sections for the production of comb honey? 2. In how large, and what shape pieces should it be cut to render the apiarist the best results?

[1. Either will answer. Some prefer one kind, and some the other.

2. Fill the sections with comb foundation. It will pay to do so.—Ed.]

Bees had a Good Flight.—Herbert Clark, Palmyra,♀ Iowa, on Dec. 15, 1887, says:

My bees had a good flight yesterday. There was only a little snow on the ground. I took off the caps on one cold, windy day, and to my surprise I took out 200 pounds of nice comb honey, and then filled the caps with forest leaves. The coldest day so far was Nov. 27, being 17° below zero.

Convention Notices.

☞ The next meeting of the Nebraska State Bee-Keepers' Association will be held on Jan. 11, 1888, at Lincoln, Nebr.
Henry Patterson, *Sec.*

The annual convention of the Vermont State Bee-Keepers' Association will be held at the Van Ness House, in Burlington, Vt., on the Jan. 18 and 19, 1888. R. H. Holmes, *Sec.*

☞ The Ontario Bee-Keepers' Association will hold its annual meeting at Woodstock, Ontario, on Tuesday and Wednesday, Jan. 10 and 11, 1888.
W. Couse, *Sec.*

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice.
J. W. Buchanan, *Sec.*

☞ The Cortland Union Bee-Keepers' Association will hold their annual meeting at Cortland, N. Y., on Tuesday, Jan. 10, 1888, for the election of officers and to transact such business as may come before the meeting. All bee-keepers are invited.
R. L. Weaver, *Sec.*

☞ The Susquehanna County Bee-Keepers' Association will meet at New Milford, Pa., on Jan. 7, 1888. Subjects for discussion: "The Best Way to Prevent Swarming," and "Is it Advisable to Italianize Colonies?" All bee-keepers are cordially invited. H. M. Seeley, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southeastern Wisconsin Bee-Keepers' Association will be held in G. A. R. Hall, corner of State & North Main Sts., in Rockford, Ills., on Jan. 17 and 18, 1888. Dr. Miller will be present, and a good programme is in course of preparation.
D. A. Fuller, *Sec.*

☞ The fifth annual Ohio State Bee-keepers' Convention will be held in the United States Hotel, corner High and Town Sts., Columbus, O., on Jan. 10 and 11, 1888. An interesting programme will be arranged. Reduced rates at the hotel are $1.50 for each person, double, or $2.00 per day if single. There will be reduced rates of travel, particulars of which will be given later. It is desirable to know who can be present. Will you kindly notify me by postal card, at Bluffton, Ohio.
Frank A. Eaton, *Sec.*

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the Bee Journal. It is now so *cheap* that no one can afford to do without it. We will present a **Binder** for the Bee Journal to any one sending us three subscriptions—with $3.00—direct to this office. It **will pay** any one to devote a few hours, to get subscribers.

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The price of the **REVIEW** will be 50 cts. per year; and while we have not the slightest objection to receiving subscriptions in advance, our only request is that each one interested will send his address, and allow Uncle Sam to hand him a copy of the first issue as soon as it is printed.

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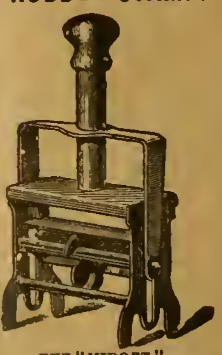

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